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MARCH 17, 1927

# THE GEOGRAPHY OF WEST VIRGINIA

By M. P. SHAWKEY, *Ex-Principal, Normal Department, Wesleyan College of West Virginia.*

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## I. WEST VIRGINIA AS A WHOLE

**Position.** West Virginia lies mainly in the Allegheny Plateau (Adv. Geog., Fig. 191), and on the eastern limit of the Mississippi Basin. A small portion of the eastern panhandle, however, extends across the divide and drains its waters through the Potomac into Chesapeake Bay. The area of the state embraces the slope from the backbone of the Appalachian Mountains on the eastern boundary line to the west shore of the Ohio River, extending southwest from Maryland and Pennsylvania to Virginia and Kentucky. West Virginia is in the same latitude as Kansas and central California, yet owing to

its position near the eastern seacoast, and also because of its higher altitude, it has different climatic conditions. The eastern panhandle stretches to a point in the Blue Ridge near Harpers Ferry, within fifty miles of the National Capital. The extreme western point, near Kenova, is but one hundred and fifty miles from Cincinnati, while the extreme point of the northern panhandle is farther north than Pittsburg.

**Size.** The total area of the state is 24,780 square miles. Compared with Texas West Virginia has not a great area, but compared with Rhode Island or Connecticut, or with the Swiss republic or the kingdom of Belgium, it is a large state. Her area, however, is



FIG. 1. *View in the canyon of the New-Kanawha River. Here, where the New-Kanawha traverses the Appalachian coal field, its pathway follows a deep, rugged gorge cut by the stream in the nearly level plain. The precipitous walls of the narrow canyon vary in height from 1,200 to 1,500 feet.*

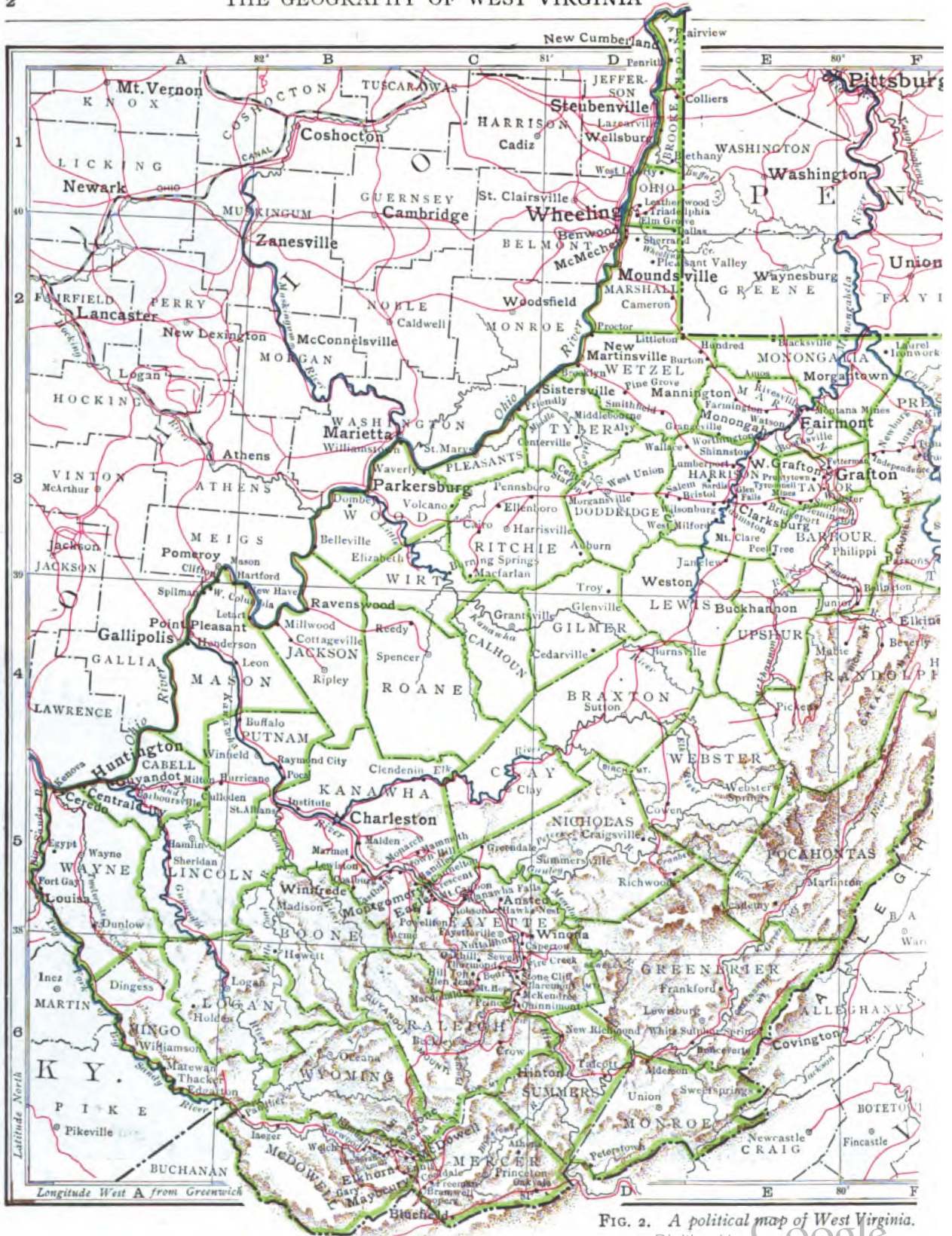
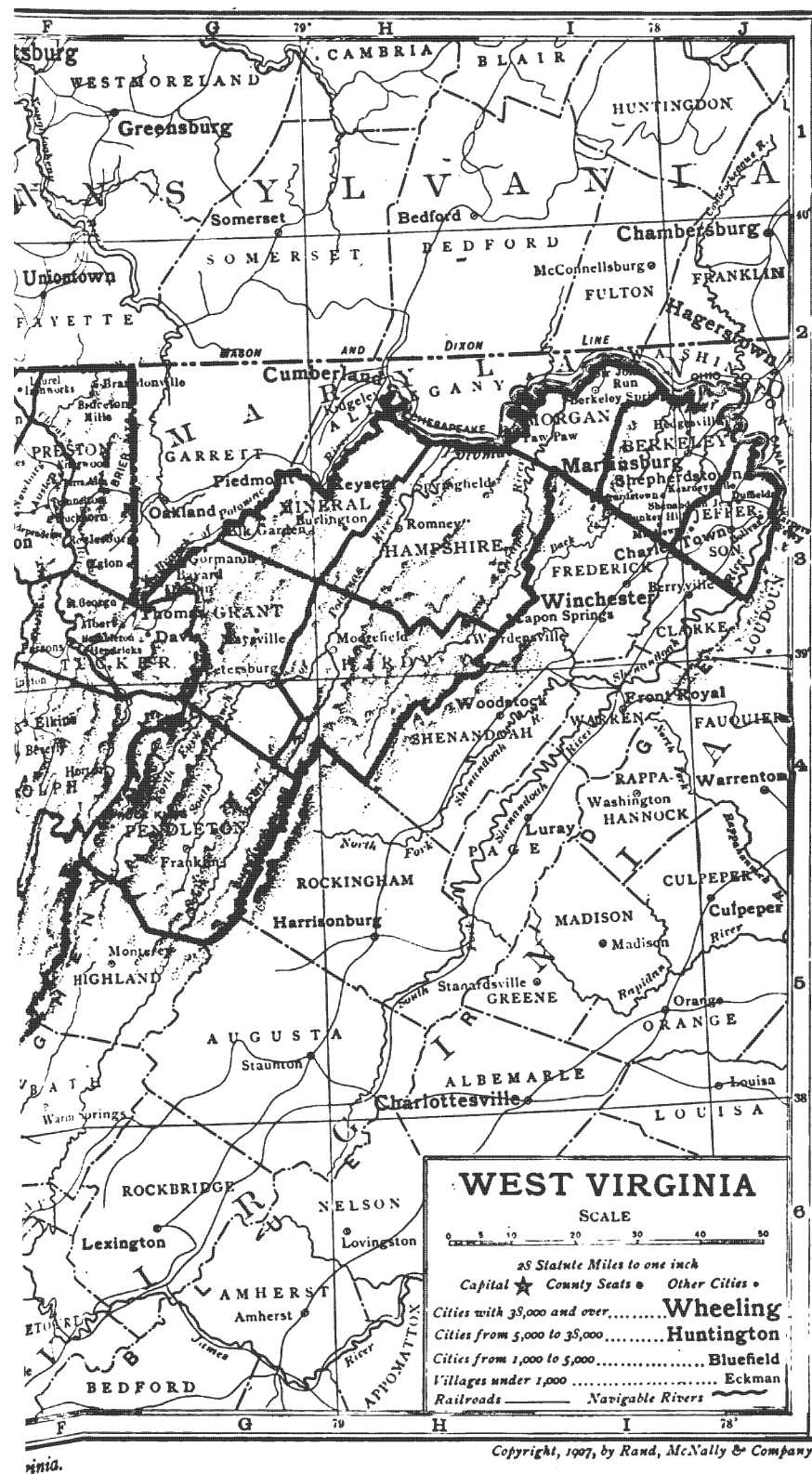


FIG. 2. A political map of West Virginia.





three times as great as that of Massachusetts and, omitting Maine, is almost equal to that of all the New England states combined.

The longest straight line that could be drawn within the state would extend from the Blue Ridge gap east of Harpers Ferry to the mouth of the Big Sandy River west of Kenova, or a little more than two hundred and seventy miles. A similar line drawn from a point at the intersection of the Ohio, Pennsylvania, and West Virginia boundary lines to the extreme southern point of McDowell County, would be more than two hundred and forty miles in length. (Fig. 2.)

The area is practically all land surface, there being no bodies of water in West Virginia except the various rivers, which have a combined surface area estimated at a hundred and thirty-five square miles. West Virginia has more streams but less water surface than a majority of the states of the Union.

**Surface.** The entire area, with the exception of the small portion in the Great Valley, is of a mountainous character, with an average elevation of more than twelve hundred feet. The general slope is westward from the crest of the Alleghenies on the Virginia line to the Ohio River on the western border. (Fig. 3.) A plateau much dissected by river valleys extends through the east central section from northeast to southwest, a distance of one hundred and fifty miles, including part or all of Mineral, Preston, Grant, Tucker, Pendleton, Webster, Randolph, Pocahontas,

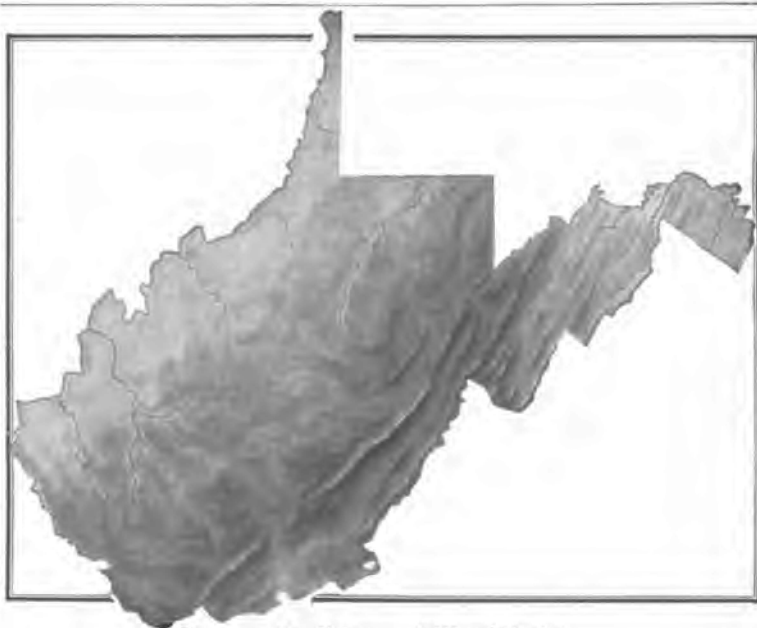


FIG. 3. A relief map of West Virginia.

Nicholas, Greenbrier, Fayette, Raleigh, Mercer, McDowell, Wyoming, Boone, Logan, and Mingo counties. Through the center of this plateau the New-Kanawha has cut a transverse chasm which, in the vicinity of Fayetteville, has a depth of twelve hundred feet. The walls of this canyon rise abruptly, and at Hawks Nest are of solid rock and almost perpendicular. (Figs. 1 and 5.) The Kanawha Falls, just below Hawks Nest, marks a sudden break in the rocky bed of the stream.

Spruce Knob, in Pendleton County, with an altitude of 4,780 feet, is the highest point in West Virginia. (Fig. 4.) Within the mountains, near by, is the "birth-place of rivers." Here six streams of the state have their origin. Throughout this entire region mountain springs abound, some of which are very large and supply power for mills and other industrial works. The Potomac River (Fig. 63), whose branches flow through the Great Valley between

parallel ranges of the Allegheny and the Blue Ridge mountains, has cut a gap through the Blue Ridge ranges at the eastern extremity of the state, thereby forming a natural highway for commerce between the middle Atlantic seaboard and the Ohio valley. At one end of this gorge, and at the junction of the Shenandoah and Potomac rivers, is located the historic town of Harpers Ferry (Fig. 6), notable as the scene of John Brown's raid.

**Drainage.** The greater part of the state is drained by the Ohio, Monongahela, and New-Kanawha rivers. The Monongahela, formed

by the union of Tygarts River and the West Fork at Fairmont, flows north, uniting with the Allegheny at Pittsburg to form the Ohio. In West Virginia its largest tributary is the Cheat (Fig. 62), which rises on the southern border of Randolph County and joins the Monongahela just north of the Pennsylvania boundary line. The Kanawha, known in its

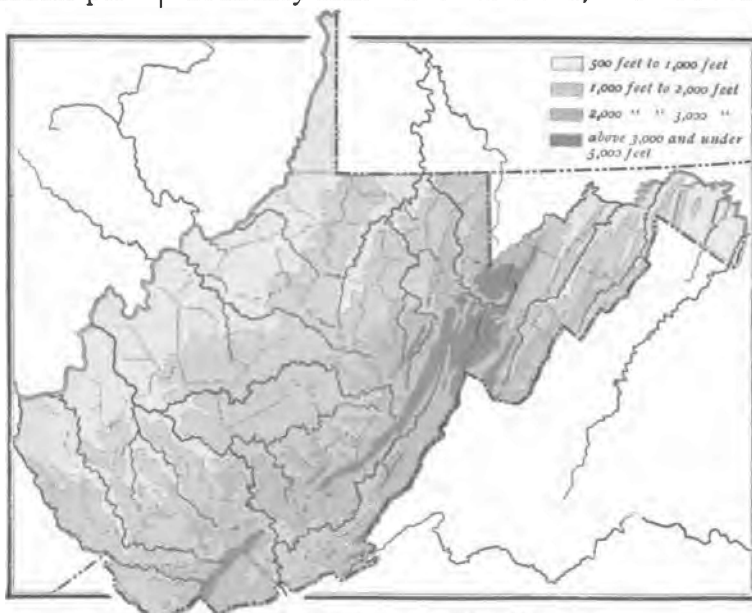


FIG. 4. A physical map of West Virginia.

upper course as New River, rises in the western part of North Carolina, flows northwest, and empties into the Ohio River at Point Pleasant. Its principal tributaries are the Greenbrier, Gauley, Elk, and Coal, all streams of considerable size and importance. The Little Kanawha, rising in the eastern mountains, flows northwest through the rich central coal and timber region, and joins the Ohio in Wood County, where the prosperous city of Parkersburg has sprung up. The Big Sandy River curves around the southwestern angle of the state, forming the dividing line between West Virginia and Kentucky for a distance of nearly one hundred miles. The Guyandot for the greater part of its course parallels the Big Sandy, and ten miles above the mouth of that stream empties into the Ohio. Both of these rivers are of importance because of the vast



FIG. 5. *Massive sandstone cliffs crowning the bluffs that tower 1,000 feet above the New-Kanawha River.*

quantities of timber floated down on them every year.

The broad, fertile valleys of the Ohio, Potomac, and Greenbrier rivers have become leading farming sections. The Ohio River to its western shore is a part of the territory of West Virginia. It contains many beautiful islands; among them is Blennerhassett Island, just below Parkersburg, which will long be remembered for its connection with the political schemes of Aaron Burr.

The scenery of the state is rich and varied. The rugged mountains separated by broad, fertile valleys, the rolling hills and far-stretching plateaus, the many mountain streams with picturesque gorges and beautiful cascades, the vast forests and verdant meadows, form a constant succession of attractive and ever-varying landscapes.

**Climate.** The climate of West Virginia is that of the East Coastal region of the



FIG. 6. *Harpers Ferry, the scene of some of the most stirring events in the history of our country. Here, where the Potomac pierces the Blue Ridge in a great gorge and where it is joined by the Shenandoah, the scenery is remarkable for its beauty.*



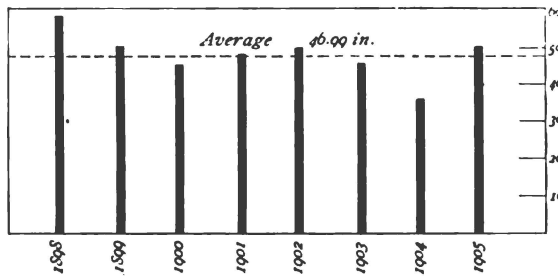


FIG. 7. The annual rainfall at Weston from 1898 to 1905.

United States. (Adv. Geog., p. 102.) Owing, however, to the arrangement of the highlands and to the high altitudes in the plateau section, it is not subject to such sudden changes as is the climate of the Atlantic coast states. In winter the prevailing winds are from the northwest, and in summer from the southwest. Storms advancing from the Mississippi Valley (Adv. Geog., Fig. 187) usually turn northeast, sweeping across the state, and are checked by the eastern mountains, which also serve as a barrier against storms from the coast. Although frequently crossed by storm areas, West Virginia is rarely visited by damaging storms.

The prevailing high altitudes modify the heat of summer so that the maximum temperature seldom equals that of New York City. (Fig. 8.) The altitudes are not so great as to cause heavier precipitations of snow in winter than are needful for protecting winter grains and for winter travel. The annual rainfall is abundant, averaging

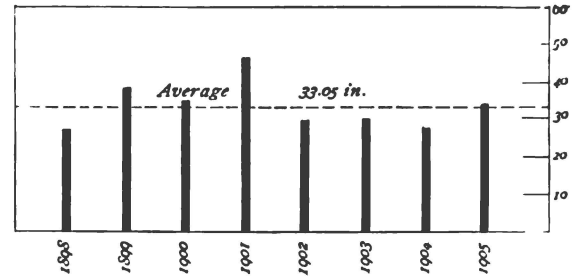


FIG. 9. The annual rainfall at Green Sulphur Springs from 1898 to 1905.

about forty inches (Figs. 7, 8, 9, and Adv. Geog., Fig. 97), and is evenly distributed. There is no place in the state where the rainfall during the growing season is not sufficient for luxuriant vegetation and for all agricultural purposes. Because of the prevailing humidity and the favorable temperature, both the mountains and the valleys support a heavy growth of timber.

The cool, bracing atmosphere of summer, together with the extensive natural forests and the numerous mineral springs, make the mountain regions popular as health and pleasure resorts. (Fig. 56.)

**The People.** Prior to the year 1863, what is now West Virginia was embraced within the limits of Virginia, and of our present in-

habitants a larger part came from the parent state than from any other commonwealth. The population also includes many immigrants from other states of the Union, especially from Ohio, Pennsylvania, Kentucky, and Maryland. (Fig. 12.)

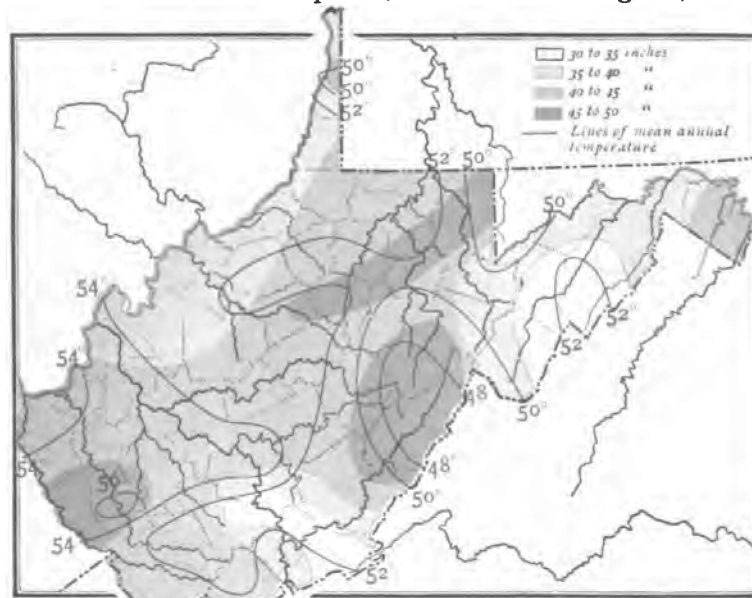


FIG. 8. The mean annual rainfall and temperature of West Virginia.

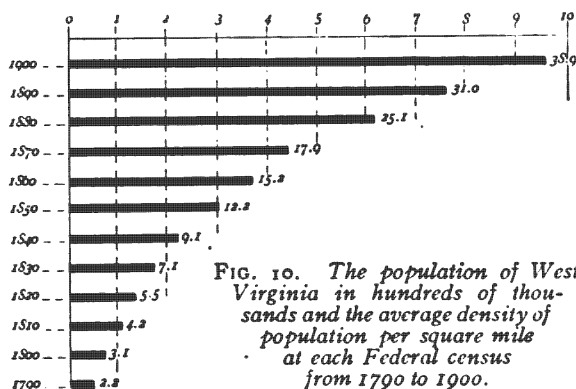


FIG. 10. The population of West Virginia in hundreds of thousands and the average density of population per square mile at each Federal census from 1790 to 1900.

According to the census of 1900, seventeen out of every hundred people in West Virginia were born outside of the state. While few states have a smaller proportion of foreign-born than West Virginia, its population includes people from nearly every country of Europe. In 1900 West Virginia contained 958,800 people. With this number it ranked twenty-eighth among the states of the Union in population, rivaling all New England states with the exception of Massachusetts, and likewise all plateau states and all states of the Pacific coast group with the exception of California. The average density of population was 38.9 per square mile (Fig. 10) in which the state exceeded the country as a whole, but was greatly exceeded by all Middle Atlantic and all New England states except Maine and Vermont. There was an increase in the population of the state between 1890 and 1900 of 25.7 per cent, which was vastly in excess of that for all northern, and slightly so for that of all southern New England states, while of all the Middle Atlantic states only New Jersey was in advance of it. Curiously enough, West Virginia's rate of

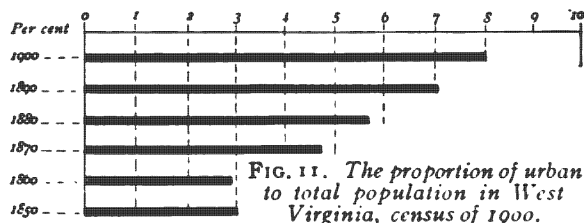


FIG. 11. The proportion of urban to total population in West Virginia, census of 1900.

increase during the decade was more than double that of Virginia, the parent state.

For many years the population was mainly confined to the river valleys or to the grazing and corn-growing sections of the plateau region, and the people were engaged exclusively in agricultural pursuits for a livelihood. Later, the vast resources in timber, coal, oil, gas, glass-sands, and clays attracted the eyes of the commercial world, with a consequent remarkable growth in mining, manufacturing, and railroad building. This new industrial activity is working great changes in the life of the people. Cities and towns are springing up all over the state and are developing at an extraordinary rate. Until recent years more than three-fourths of the people lived

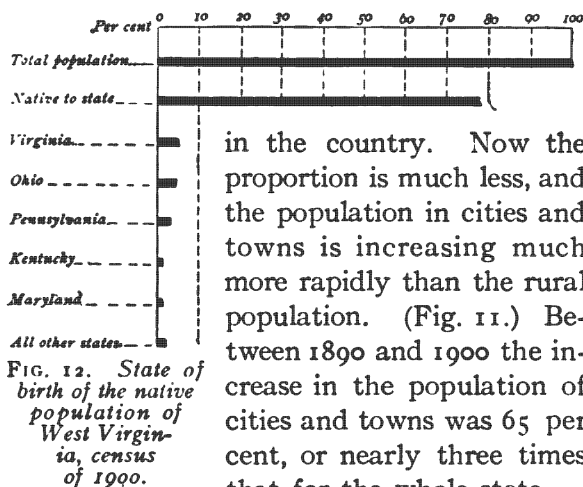


FIG. 12. State of birth of the native population of West Virginia, census of 1900.

in the country. Now the proportion is much less, and the population in cities and towns is increasing much more rapidly than the rural population. (Fig. 11.) Between 1890 and 1900 the increase in the population of cities and towns was 65 per cent, or nearly three times that for the whole state.

Notwithstanding their diversity of origin, our people are united on all matters affecting the public welfare. Civil order and religious peace have always prevailed. In every section of the state there is a strong sentiment in favor of the public schools, and the churches of all denominations are liberally supported. Generous provision is made by the state for the care of the dependent and unfortunate classes. "Mountaineers" proverbially are liberty-loving and patriotic, and these characteristics indeed are truly distinctive qualities of the people of West Virginia.

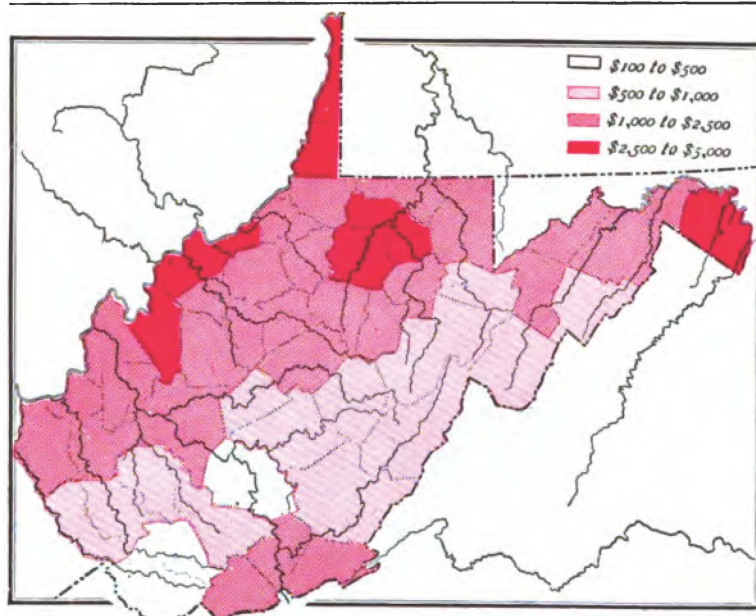


FIG. 13. *The value of farm products per square mile, census of 1900.*

**Agriculture.** The surface of West Virginia originally was covered with heavy forests, which had to be removed before the land could be farmed. It is much diversified by slopes and is sometimes rough, thus rendering cultivation of the soil difficult. Both soil and climate, however, are well adapted to agricultural pursuits, which outrank all others (Fig. 18) and in which great gains have been made in recent years. Farm lands cover nearly 68 per cent of the area of the state and more than one-half of this area is improved land, with a large proportion under crops. Farm products in 1900 reached a total value of about \$45,000,000. (Fig. 13.)

The limestone and shale soils of the Potomac valley have been under a high state of cultivation for more than a hundred years. The limestone soils are found in a belt which extends almost the entire distance from Berkeley to McDowell County. This belt is

especially conspicuous in Pocahontas, Greenbrier, and Monroe counties, where the blue grass is a characteristic crop, and cattle of the finest grades are raised in large numbers. The shale soils extend from Monongalia County to Kanawha and Lincoln counties, and also are favorable for the growth of grass and for general farming. The alluvial soils of the Ohio and Kanawha river valleys are especially adapted to market gardening and to the growing of small fruits. Nearly all the cereals are grown quite generally over the state. A little more than

one-half of the area under crops is devoted to the raising of grain. Corn and wheat occupy two-thirds of the area given over to cereals. West Virginia, with an annual production of more than 16,000,000 bushels, ranks twenty-eighth in corn (Fig. 14); in wheat the state ranks twenty-seventh, the yearly yield being a little less than 5,000,000 bushels. Oats and

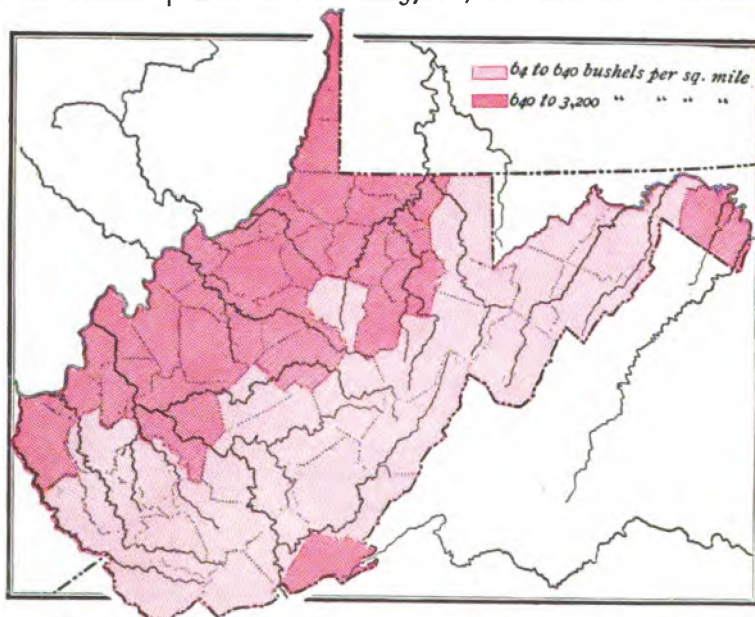


FIG. 14. *The production of corn per square mile, census of 1900.*



FIG. 15. A cattle scene on the experimental farm of the West Virginia University, at Morgantown.

buckwheat are next in importance. Among the states West Virginia ranks sixth in buckwheat, but with a yield of 267,000 bushels produces only 2.4 per cent of the total crop of the country. Preston County leads in the production of buckwheat, producing in 1900 nearly one-half of the total crop harvested in the state. Climate and soil favor the growth of grasses, and with more than 600,000 acres under hay and forage dairy farming is growing in importance. The dairy farms of the state yielded 83,800,000 gallons of milk during the year, most of which was utilized in the production of nearly 17,000,000 pounds of butter. About 2,200,000 bushels of potatoes were grown in West Virginia, Marshall County having the largest yield. The sweet potato flourishes in almost every county of the state, yielding a crop of 202,000 bushels, with Wayne County outranking all others. Tobacco is grown extensively in the counties south of the Kanawha River, especially in Lincoln, Putnam, Cabell, Jackson, and Wayne. Cattle,

sheep, and hogs are raised, great gains having been made in cattle raising in recent years. (Figs. 15 and 16.) Poultry raising is a profitable industry, the value of the poultry raised in a year being nearly \$2,000,000. The production of honey also is of importance and bees are kept on more than 2,500 farms, the yield of honey for the year exceeding 1,600,000 pounds. Cattle and poultry are shipped to the eastern markets.

Market gardening is becoming a profitable industry, as the development of the mining and manufacturing centers supplies a constantly increasing home market for such products. The growth of this industry shows remarkably rapid gains due, in part, to the fact that fields are cultivated with increasing intelligence and intensiveness each year. Market garden products and small fruits sold in 1900 yielded nearly five times the amount received for those products in 1890, the percentage of gain for the state during the decade being

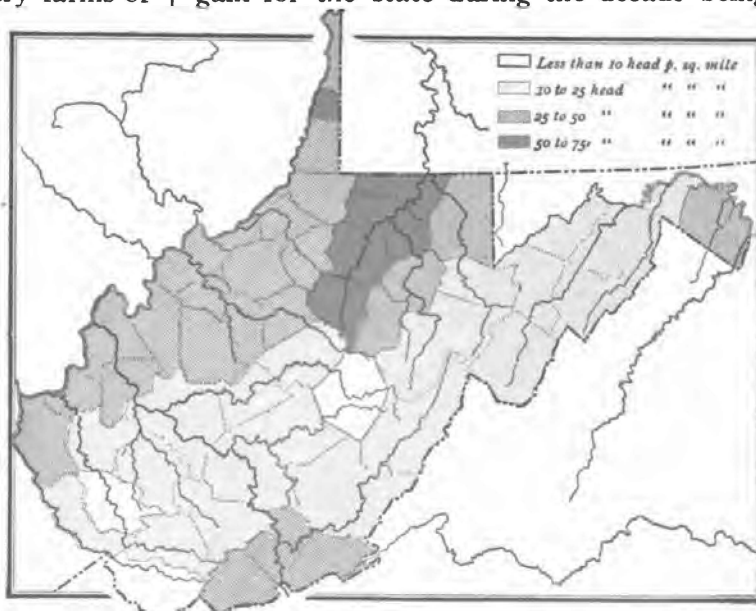


FIG. 16. The distribution of cattle per square mile, census of 1900.



nearly double that for the whole country.

Small fruits are abundant everywhere. Orchard fruits do well in nearly all sections of the state, but especially so in the upper Ohio valley and along the Potomac, and the area under orchards in West Virginia shows a steady and noteworthy gain. In fact no branch of agriculture is making greater strides in the state than is the fruit industry. (Fig. 19.) Apple and peach trees are planted annually in increasing numbers. In 1900, the number of apple trees in the state was nearly double the number in 1890, and the yield of fruit increased from 4,440,000 to 7,496,000 bushels of apples. During the same period the number of



FIG. 17. Scene in an apple orchard. West Virginia is steadily gaining in importance as an apple-producing state.

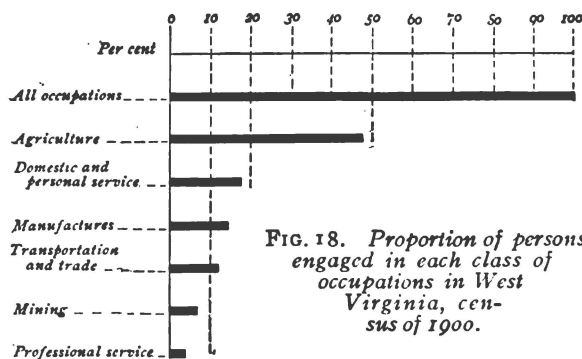


FIG. 18. Proportion of persons engaged in each class of occupations in West Virginia, census of 1900.

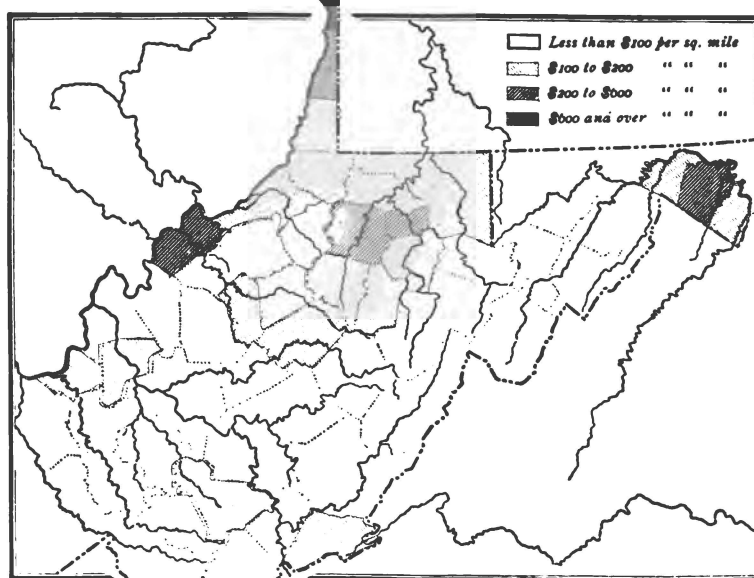


FIG. 19. The production of fruit per square mile, census of 1900.

peach trees increased from less than 500,000 to more than 1,600,000. Berkeley, Hampshire, and Wood counties excel in the production of peaches, and Preston, Braxton, Barbour, Berkeley, Jefferson, Hancock, Brooke,

Mason and other counties lead in producing large quantities of fine apples. (Fig. 17.)

The Agricultural Experiment Station at Morgantown has made a study of our soils and climatic conditions, and is doing much to assist the farmers in developing the agricultural resources of the state.

**Mining.** West Virginia possesses enormous wealth in its vast stores of the mineral fuels, coal, oil, and gas. Nearly seven-tenths of the total area of the state is included in the coal fields of the Appalachian system which extends across West Virginia from

northeast to southwest. Its coal area (Adv. Geog., Figs. 221 and 222) of practically 17,280 square miles exceeds that of Pennsylvania, the leading coal-producing state of the Union. In production of coal West Virginia stands second, the output of her mines in 1905 being

37,560,000 short tons. (Fig. 26.) The coal of West Virginia practically is limited to the bituminous variety, there being a trace of anthracite in the eastern panhandle only. Coal is found in fifty out of the fifty-five counties of the state, and generally is of high quality, a large proportion of the coals mined being nearly smokeless, and in heat-producing qualities fully equal to the well-known Welsh coals. It is easily mined and with transportation facilities affording direct communication between the mines and the seaboard is readily marketed. (Figs. 23 and 24.) Hence, production is encouraged and the industry steadily increases in importance. This coal is used principally for steam, gas, coking, and domestic purposes, a very large per cent of the production being shipped to other states and to foreign countries.

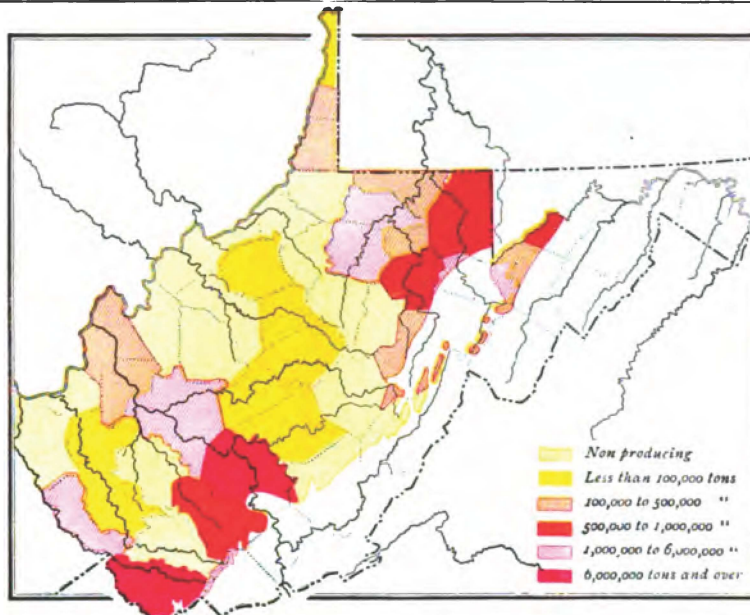


FIG. 20. The coal fields of West Virginia, and the production of coal by counties, 1904.

opening in the mountain side rather than by a shaft, as is necessary where the coal is deep down in the earth. Had the rivers not cut valleys into the horizontal rocks, the coal could be obtained only by means of shafts as in England and other countries where the deposits lie deep underground. Shaft mining

Owing to the fact that the coal lies in nearly horizontal beds in the plateau area, and is covered by a deep deposit of sandstone, it is most accessible from the sides of the river valleys. Hence the mining is nearly all drift mining: that is, it is done by means of a lateral

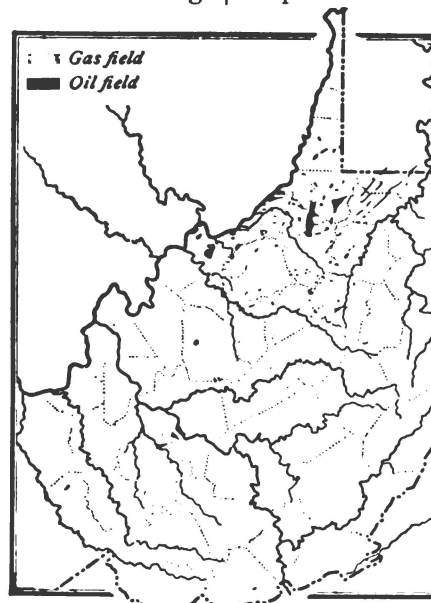


FIG. 21. The oil and gas fields of West Virginia.

is more expensive than drift mining, because the machinery for hoisting the coal to the surface costs much more than that used for hauling it to daylight along horizontal tunnels or drifts. (Fig. 22.) To-day the leading coal mining counties (Fig. 20) are Fayette, McDowell, Marion, Kanawha, Harrison, Mercer, Mingo, Tucker, Barbour, Preston, Raleigh, and Mineral.

The Appalachian oil and gas fields likewise lap over into West Virginia. (Fig. 21.) These notable fields produce the petroleum known the world over as the standard





FIG. 22. Scene at the entrance to a coal mine. The coal is being hauled from the mine to the tippie in motor cars.

of quality and of natural gas yield by far the larger portion of the world's total supply. To West Virginia's large areas of known oil and gas territory (Adv. Geog., Figs. 227 and 229), exploration is making constant additions. In the value of oil produced West Virginia stands second only to Ohio, and in that of natural gas surpasses all the other states of the Union except Pennsylvania. However, as to quantity of output, West Virginia now ranks fourth among petroleum-producing states. (Fig. 28.) This change in position of product is due to the continuance of the enormous increase in an inferior grade of oil in California and Texas. Oil and gas are generally found in certain particular rock layers, but



FIG. 24. View of a coal tippie. Here the coal is screened, loaded on cars, and started on its way to market.

their existence can never be positively determined until a test has been made by sinking wells in the territory. Oil and gas wells are vertical holes, eight to ten inches in diameter, drilled into the earth in some cases to a depth of several hundred or several thousand feet. For sinking these wells the derrick, a tall wooden frame, pyramid in shape and about seventy-five feet high, is necessary. It is the most conspicuous object in the landscape in all oil countries. (Fig. 27.) Sometimes when a pool of oil is struck the pressure is so great that the fluid spouts out, throwing a stream high into the air. This is called a

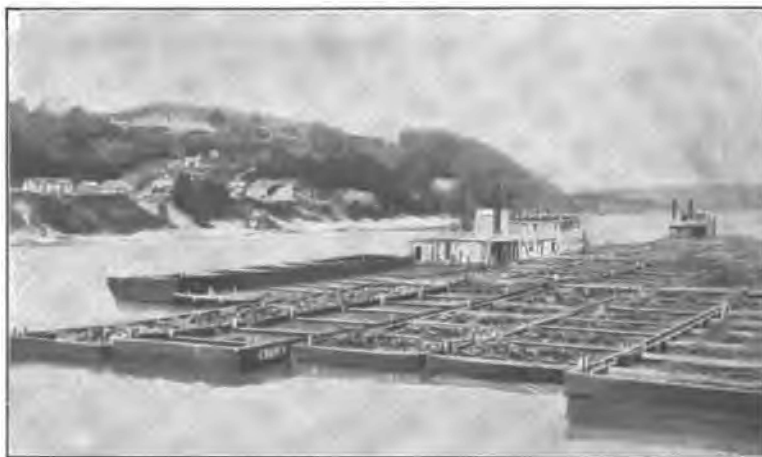


FIG. 23. A coal fleet on the New-Kanawha, near Charleston. This river flows through a region abounding in coal and over it great quantities of coal are shipped annually.

flowing well. Generally, however, the pressure is not sufficient to cause the oil to flow, and machinery is used to pump it from the underground pools. After the oil is brought to the surface it is collected in immense steel storage tanks (Fig. 25), and is then shipped away to large cities by means of pipe lines. From the Appalachian oil fields pipe lines extend to all great cities east of the Mississippi. Oil as it comes from the earth is known as petroleum, or crude oil. Later it is put through a refining process by means of which we get what is called kerosene, or lamp oil, and, among other important by-products, paraffine, vaseline, and dyes.

Natural gas is a valuable commercial commodity, being much used as fuel in manufacturing. It burns with a great heat and little smoke, and leaves no unconsumed residue, such as coal and other fuels do. For many years there has been a steady and a marked increase in the value of natural gas produced in the state. Between 1890 and 1904 the value of the West



FIG. 25. A storage tank for oil. At the left may be seen the derricks marking the site of the oil wells and, extending from the wells to the tank, the pipe line.

abundance, and are used largely for building purposes; while in Pocahontas County and the eastern panhandle some varieties of marble are found. In West Virginia no iron ore beds are operated although Monroe County contains a large deposit of high grade hematite ore.

**Forests and Lumbering.** In Washington's time West Virginia was one vast forest, and the only highways were the streams, which

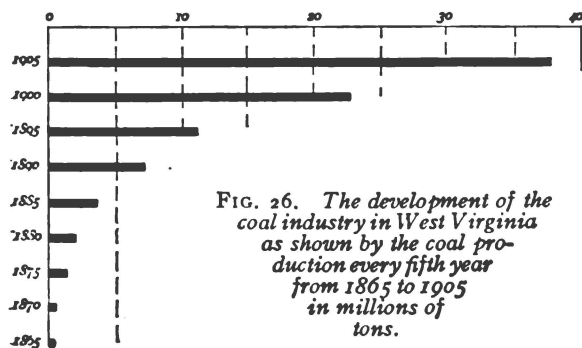


FIG. 26. The development of the coal industry in West Virginia as shown by the coal production every fifth year from 1865 to 1905 in millions of tons.

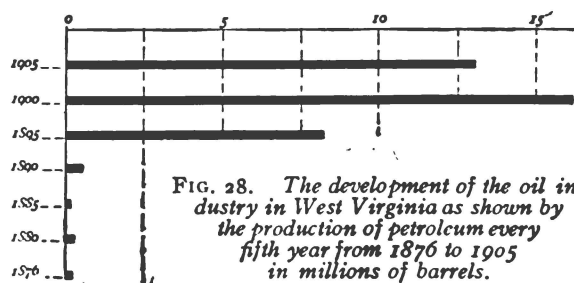


FIG. 28. The development of the oil industry in West Virginia as shown by the production of petroleum every fifth year from 1876 to 1905 in millions of barrels.

Virginia product advanced from \$5,400 to \$8,114,249. The abundant supply of this mineral fuel is doing a great deal toward making West Virginia a great manufacturing state. Vast quantities of natural gas from the West Virginia field are now supplied to industrial centers in Ohio and Pennsylvania.

Salt also is produced from wells at Hartford, Malden, and one or two other points, but the industry is not so flourishing as it once was. In several sections of the state quarrying is a profitable business. Limestone and freestone are found in



FIG. 27. Derrick used in sinking an oil well.

Nature had carved out, and the trails made by the Indians. To the early settler these forests were an obstacle to progress rather than a source of wealth, and for many years the finest timber in the world was cut, rolled into log heaps, and burned simply to get rid of it. As the country became more thickly settled the value of the timber began to be appreciated, and in recent years lumbering has become one of the state's most profitable industries. While in certain localities the forests have disappeared entirely and elsewhere much valuable lumber has been cut, yet the state still contains



FIG. 29. Scene in a forest in Greenbrier County. Oak is the characteristic timber of the forests throughout this area.

extensive areas under primeval forest and has large quantities of merchantable timber.

In 1900 the wooded area of West Virginia was estimated to be about 18,500 square miles, its wealth in timber still being enormous. Through the extension of transportation facilities new regions are opened up each year and the lumber industry shows an important and steady growth from season to season. It is estimated that the lumber product of the state at present exceeds in value the entire coal output. (Fig. 30.) Oak, pine, poplar, hemlock, cherry, beech, ash, chestnut, spruce, and hickory are the principal timber-producing trees, but many other forest trees abound, such as maple, birch, linden, sycamore, locust, dogwood, cedar, gum, elm, walnut, persimmon, paw-paw, and willow. (Fig. 29.) The bark from some of these trees, such as the oak and hemlock, is valuable for tanning purposes, and for making dyes.

**Manufacturing.** Coal and gas are the great fuels of the world, and wherever they are found in considerable quantities close to supplies of raw materials, manufacturing enterprises always prosper. In these respects West Virginia is exceedingly favored. Hence, every year sees an increase in the production of coal and gas, and likewise witnesses a marked increase in the number and kind of manufactories. (Figs. 31, 32, 65, and 66.) Especially noteworthy is the growth of glass-making plants owing to the near-by supplies of glass-sands. In Morgantown, Clarksburg, Wheeling, Buckhannon, Sistersville, and other towns window glass, table glass, and bottles are manufactured. Steel and iron mills are found chiefly in Wheeling, Benwood, Clarksburg, Charleston, and Parkersburg. (Fig. 34.) The car shops of Huntington employ a large number of men. The axe factory at Charleston is the largest in the world. Woolen

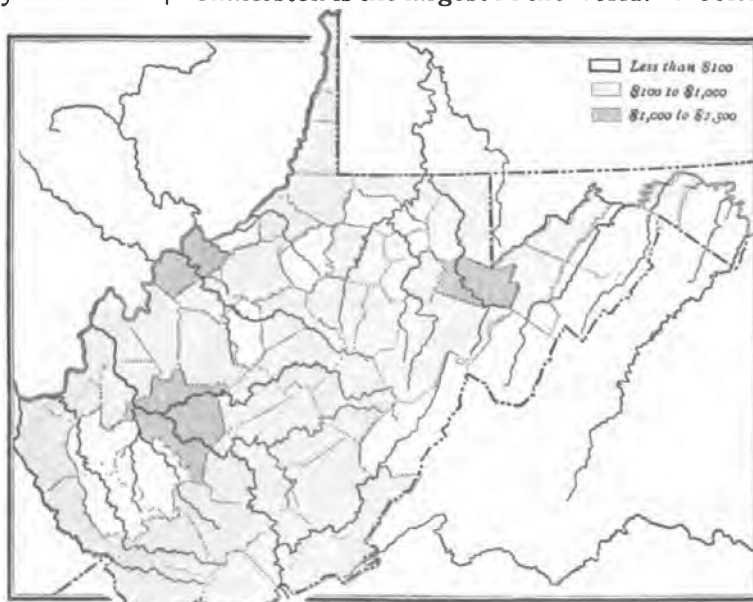


FIG. 30. The value of lumber and timber products per square mile in West Virginia, census of 1900.

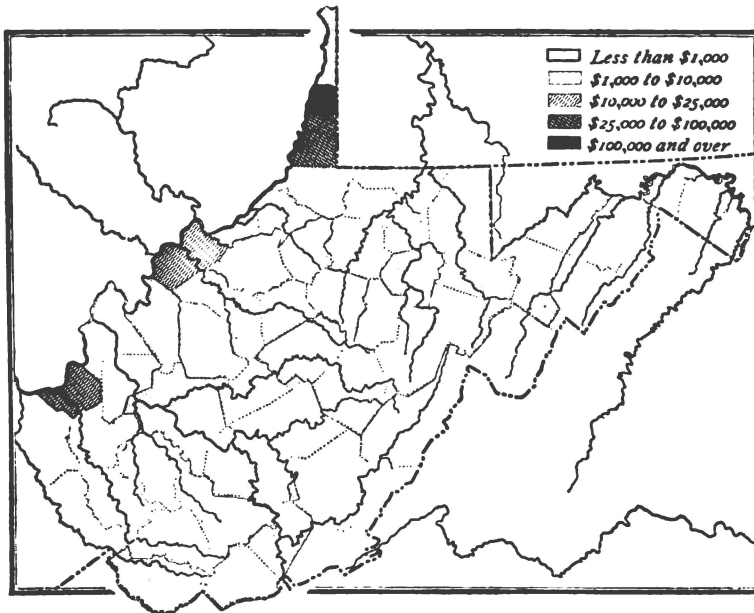


FIG. 31. The value of manufactured products per square mile, census of 1900.

mills are found at Charleston, Martinsburg, and at several smaller towns. (Fig. 35.) Pulp and paper mills are located at Piedmont, Parsons, and Richwood close to the necessary supplies of wood. (Fig. 36.) Lumber is manufactured in nearly every county, but particularly throughout the counties of the eastern and southern sections, which contain extensive areas covered with fine forests, especially of poplar and hardwoods. (Fig. 33.) At Buckhannon and Richwood are located tanneries due largely to their accessibility to vast forests which afford unlimited supplies of oak and hemlock barks. At Richwood (Fig. 64), which is adjacent to abundant supplies of excellent timber, is a large clothespin factory and also a hub factory. Furniture factories are located in a dozen or more towns. For more than twenty years West Virginia and

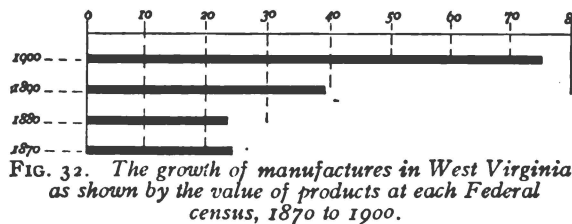


FIG. 32. The growth of manufactures in West Virginia as shown by the value of products at each Federal census, 1870 to 1900.

in Calhoun, Lewis, and Doddridge counties, lampblack is made by burning the gas, millions of cubic feet of gas being consumed each day. Parkersburg has large oil refineries, and likewise manufactories for petroleum products and for oil well supplies. Extensive deposits of excellent clays have encouraged the manu-



FIG. 33. A lumber mill at Elkins, in Randolph County. Owing to the vast amount of merchantable timber in the county lumbering is a great industry in this locality and increases steadily in importance.



FIG. 34. *A great steel mill at Benwood near Wheeling. The steel and iron industries, which center chiefly in this locality, lead all others in importance in West Virginia.*

facture of clay products in which West Virginia ranked eleventh among the states in 1904. New Cumberland is the chief seat of the industries; and here pottery, fire and paving brick, tile and sewer pipe are made. Flouring and grist mill products are important and show a steady and an advancing increase from year to year.

#### **Commerce and Transportation.**

The large quantities of coal, timber, and other commodities produced for distant markets make the business of freight carrying a profitable industry in West Virginia. The Federal Government, recognizing the importance of this business, has spent large sums of money improving the channels of the Ohio, Kanawha, Monongahela, Big Sandy, and Little Kanawha rivers. Other streams, such as the Guyandot, Elk, and Gau-



FIG. 35. *Scene in the interior of a mill at Charleston where woollens are being woven.*

ley (Fig. 38), are important carriers especially for floating down logs and lumber from the vast forests of the interior.

The greater part of the business, however, is carried on by the railroads, which have multiplied rapidly as the mining interests of the state have developed. The Norfolk & Western Railroad extends from the cities of central Ohio through the southern tier of counties of West Virginia, along the valley of the Big Sandy River, crosses the eastern ridges

through the gaps formed by the New River, and extends to the Virginia seaboard, finding its main business in carrying coal and timber. The Chesapeake & Ohio Railroad follows the New-Kanawha valley and connects the lower Ohio valley with the Atlantic coast and the eastern cities, passing



FIG. 36. *A great paper mill at Richwood. Abundant supplies of suitable timber throughout this county and valuable water power have made the manufacture of paper an important industry at this point.*





FIG. 37. A modern blast furnace, at Wheeling, where iron is separated from the ore.

through the south central section of the state. This road has numerous branch lines extending into the coal, timber, and agricultural sections of the state and has been a wonderfully important factor in the development of these extensive industrial resources. The Baltimore & Ohio was the first railroad built in the United States. It soon extended its original line across the northern section of West Virginia, following the Potomac valley through the eastern ridges and piercing the Blue Ridge through the gap at Harpers Ferry. (Fig. 6.) Its branch lines now reach every town and city of importance in the northern portion of the state, and furnish the means for direct communication with Pittsburg,



FIG. 38. At the junction of the Gauley with the New-Kanawha River.

the ore ports of Lake Erie, and with the cities of the Atlantic seaboard. (Fig. 39.)

The Ohio Central lines extend into the heart of the state connecting the New-Kanawha River coal fields with the ports of the Great Lakes and with the growing cities of the Northwest.

The Coal & Coke, the Western Maryland, and other important railroads are building a network of lines throughout the great central section of the state and form a direct line between Charleston, Baltimore, and the great cities of the east. The Deepwater and Tidewater railroads are projected from the head of slackwater navigation on the Kanawha through the heart of the southeastern coal



FIG. 39. A "limited" train on one of the great trunk lines crossing the state at full speed.

and timber section to the Atlantic coast and have provided the necessary stimulus for the development of the vast natural resources of that region. In every section of the state other roads are building and the consequent development of resources is constantly going on. Nearly all the coal and coke and a large part of the timber produced in the state are shipped to distant markets, the return trade consisting principally in food stuffs, clothing, and machinery and implements of various kinds.

**Government.** West Virginia is composed of fifty-five counties of varying area and population. The counties are divided into magisterial districts, not exceeding ten, with cities

and independent school districts created by special acts of the Legislature.

The state has six executive officers: Governor, Secretary of State, State Superintendent of Free Schools, Auditor, Treasurer, and Attorney-General. These officers are elected for terms of four years each, and are inducted into office on the fourth of March succeeding their election. Together they constitute the Board of Public Works, with numerous important duties to discharge. The Secretary of State is secretary of the Board, but has no vote in its deliberations.

The legislative branch of the government consists of the Senate and the House of Delegates. The Senate has thirty members, two from each district, each elected for a term of four years. The House of Delegates is composed of eighty-six members elected biennially, one or more from each county.

The judicial system embraces the United States Circuit Court and Circuit Court of Appeals, the two United States District courts, the State Supreme Court of Appeals, circuit courts, county and criminal courts, and justices and police courts. There are five judges of the Supreme Court, each elected for a term of twelve years. The state comprises eighteen judicial circuits, and judges are elected in these for terms of eight years. The county courts each consist of three commissioners, one elected each second year

for a term of six years. In each magisterial district, there are two justices of the peace, elected by the voters of the district for terms of four years. In Ohio, McDowell, Marion, Cabell, Fayette, Kanawha, and Wood counties, criminal courts are maintained by special act of the Legislature. In the cities police courts of various kinds are provided for.

Besides the members of the county court, each county elects a sheriff, a clerk of the county court, a clerk of the circuit court, a prosecuting attorney, a superintendent of free schools, a surveyor of lands, and an

assessor. All of these officers are chosen for terms of four years each, except the clerks of the two courts, who are elected for terms of six years. By appointment of the county court each county in the state has an overseer of the poor, a coroner, a surveyor of

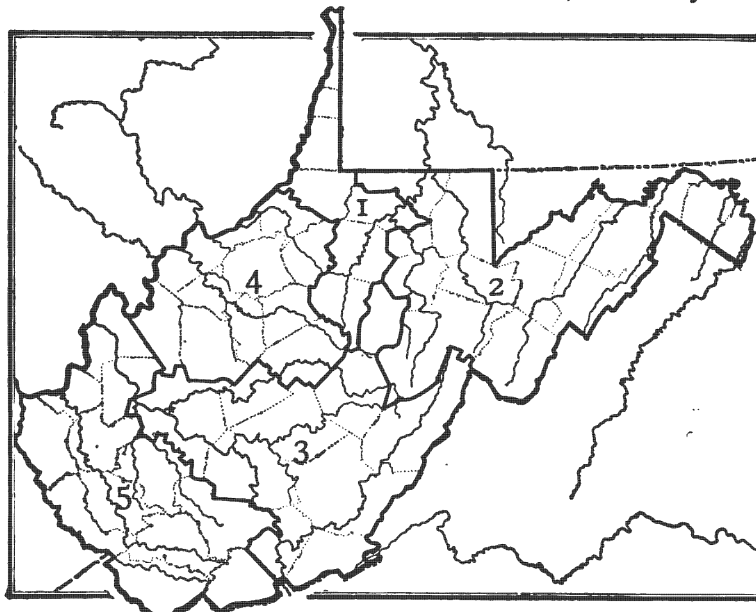


FIG. 40. The Congressional districts of West Virginia, 1906.

roads, and a school-book board.

The school district, which is the same in bounds as the magisterial district, is under the control of the board of education, consisting of three members elected for terms of four years. The board also divides the district into sub-districts, and appoints three trustees who have charge of the school of their sub-district.

West Virginia is represented in Congress by two Senators and five Representatives (Fig. 40) and has seven votes in the electoral college, which chooses the President and

FIG. 41. *The State Capitol at Charleston.*

Vice-President of the United States. The Senators are elected by the State Legislature, and the Representatives by the voters of their respective districts.

**State Institutions.** West Virginia's Capitol consists of two large buildings, besides the Governor's Mansion, located on or about Capitol Square, in the central section of Charleston, on the Kanawha River. The original capitol was erected in 1870. An addition was built to it in 1885, when the seat of government was permanently returned to Charleston from Wheeling. In 1904 the "Capitol Annex," a handsome stone and steel structure facing Capitol Square, was completed, and is now occupied by the offices of the Auditor, Treasurer, Supreme Court, by the Law Library, and the State Archives. (Figs. 41 and 42.)

At Moundsville, in Marshall County, is located the State Penitentiary, with capacity for

more than a thousand prisoners. It is equipped and managed according to the most modern and humane ideas of penal institutions. Through the labor of the prisoners the penitentiary is rendered self-supporting. The Hospital for the Insane at Weston was founded before the separation of West Virginia from the parent state. It is provided with large and beautiful grounds and commodious buildings. The Second Hospital for the Insane at Spencer is much younger, but closely rivals the older institution in size and advantages. The West Virginia Asylum at Huntington provides

a home for those permanently afflicted who may be cared for in such a home.

The Boys' Reform School at Pruntytown is both penal and educational in its nature. A similar institution for the other sex is the Girls' Industrial Home at Salem, in Harrison County. Schools for the Deaf and Blind, situated at Romney, in Hampshire County,

FIG. 42. *The Capitol Annex at Charleston.*

make ample provision for the education and training of these two classes of defectives.

There are three Miners' Hospitals, one at Fairmont, in Marion County, another at McKendree, in Fayette County, and a third one at Welch, in McDowell County. These institutions are provided for the miners, a class of laborers who are more than ordinarily exposed to accidents.

The Fish Hatchery (Fig. 43), located at White Sulphur Springs, is a Federal Institution established through the coöperation of the state, the benefits therefrom being limited almost entirely to West Virginia. It has been the means of stocking many of our streams with several important varieties of fish.

The State Geological Commission, of which the Governor is presiding officer, was created by an act of the legislature in 1897. It directs the work of the State Geological and Economic Survey. Under the



FIG. 43. View of a portion of the spawning ponds at the United States Fish Hatchery at White Sulphur Springs.

supervision of a state geologist, appointed by the commission, an exhaustive examination of the mineral resources of the state is being carried on with a view to aiding their development by affording accurate knowledge as to their importance and extent.

Maps and other publications of great value to the student and to those interested in the industrial development of the state are published by the commission.

**Education.** In West Virginia all children between the ages of six and twenty-one are entitled to free education in the public schools, and all children between the ages of eight and fourteen are required to attend school at least twenty weeks each year.



FIG. 44. Marshall College State Normal School, Huntington. Established as Marshall Academy in 1838, it was erected into a college in 1858 and in 1867 became the West Virginia State Normal School.

The State Superintendent of Free Schools is the chief school officer, and has general supervision of all the public schools of the state up to the University. In 1905 there were 6,756 public schools with an enrollment of



FIG. 45. *Seat of the Preparatory Branch of the West Virginia University at Montgomery.*

247,363 pupils. The public schools of the state are supported by the General School Fund, annually distributed among the districts, and by local taxation. The expenditure in support of these schools in 1905 reached \$3,217,600 and is increasing annually.

The West Virginia University, at Morgantown, founded in 1867 with the proceeds of a Congressional land grant, stands at the head of the educational system of the state, with an annual enrollment of 1200 or more students. The agricultural and mechanical colleges are maintained by the income from the proceeds of the land grant. The Morrill Fund contributes \$25,000 annually and the



FIG. 47. *Seat of the Preparatory Branch of the West Virginia University at Keyser.*

state makes liberal appropriations for all of the various departments of the school. The advantages of the University are free to all students of the state. While the University has always been progressive, its advancement during recent years has been especially marked and it now takes high rank among institutions of higher learning. (Fig. 46.)

In 1895 a preparatory branch of the University was established at Montgomery, in Fayette County, and in 1901 a second branch was established at Keyser, in Mineral County. Both of these branch schools have made good progress. (Figs. 45 and 47.)

The Marshall College State Normal School,



FIG. 46. *A view of a large portion of the grounds and of the principal buildings of the West Virginia University at Morgantown.*



for the training of teachers, is at Huntington. (Fig. 44.) The other normal schools, designated by statute as branches of the State Normal School, though they are separate and independent schools, are the Fairmont Normal at Fairmont, the Concord Normal at Athens, the West Liberty Normal at West Liberty, the Shepherd College Normal at Shepherdstown, and the Glenville Normal at Glenville. These schools are doing an excellent work in training the teachers of the state, as well as in giving academic training to those who wish to take advantage of the opportunities they afford.

The West Virginia Colored Institute, at Institute, Kanawha County, and the Bluefield Colored Institute at Bluefield, Mercer County, are industrial and classical institutions for the training of colored students, both maintained by the state. Storer College at Harpers Ferry, in Jefferson County,

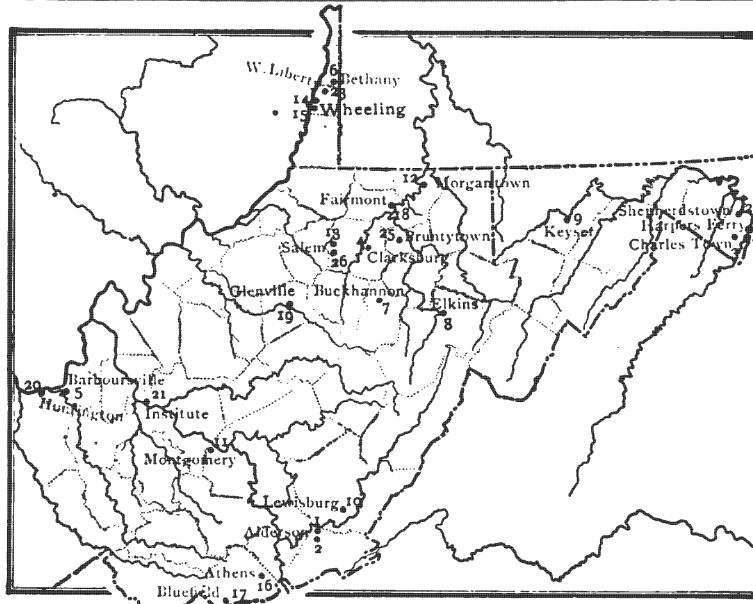


FIG. 48. *The leading educational institutions of West Virginia.*

receives state aid. The West Virginia Colored Orphans' Home in Cabell County is likewise partly supported by state appropriations.

West Virginia also has many excellent private and denominational institutions. Bethany College at Bethany, in Brooke

County, was founded by Alexander Campbell in 1840. The Wesleyan College of West Virginia at Buckhannon, in Upshur County, was established in 1890, and has become one of the prominent institutions of its class. Morris Harvey College at Barbourville, in Cabell County, Salem College at Salem, in Harrison County, Davis and Elkins College at Elkins, in Randolph County, Lewisburg Seminary at Lewisburg, in Greenbrier County, Linsley Institute and Mt. de Chantal founded 1848, in Wheeling, are all well known denominational or private institutions, and have become important factors in the educational system of the state. (Fig. 48.)

#### THE LEADING EDUCATIONAL INSTITUTIONS OF WEST VIRGINIA

##### COLLEGES AND UNIVERSITIES.

- 1 Alderson Academy, Bapt., Alderson.
- 2 Allegheny Collegiate Institute, M. E., So., Alderson.
- 3 Powhatan College, Non-sect., Charles Town.
- 4 Broadus Scientific and Classical Institute, Bapt., Clarksburg.
- 5 Morris Harvey College, M. E., So., Barbourville.
- 6 Bethany College, Christian, Bethany.
- 7 Wesleyan College of West Virginia, M. E., Buckhannon.
- 8 Davis and Elkins College, Presb., Elkins.

- 9 Preparatory Branch of the University of West Virginia, State, Keyser.
- 10 Lewisburg Seminary, Presb., Lewisburg.
- 11 Preparatory Branch of the University of West Virginia, State, Montgomery.
- 12 West Virginia University, State, Morgantown.
- 13 Salem College, Bapt., Salem.
- 14 Linsley Institute, Non-sect., Wheeling.
- 15 Mt. de Chantal, R. C., Wheeling.

##### PUBLIC NORMAL SCHOOLS.

- 16 Concord State Normal School, Athens.
- 17 Bluefield Colored Institute, Bluefield.

- 18 Fairmont State Normal School, Fairmont.
- 19 Glenville State Normal School, Glenville.
- 20 Marshall College State Normal School, Huntington.
- 21 West Virginia Colored Institute, Institute.
- 22 Shepherd College State Normal School, Shepherdstown.
- 23 West Liberty State Normal School, West Liberty.

##### PRIVATE NORMAL AND STATE INDUSTRIAL SCHOOLS.

- 24 Storer College, Harpers Ferry.
- 25 Boys' Reform School, Pruntytown.
- 26 Girls Industrial Home, Salem.

## II. THE GROWTH AND DEVELOPMENT OF CITIES AND TOWNS.

**Gain in Population.** West Virginia stands among those commonwealths in which the people of the cities and towns are largely outnumbered by the people of the country. At the same time the continuous and increasing development of her great natural resources has encouraged in an unusual degree the development of varied and important industries, and these in turn have tended largely to increase trade. Naturally, as a result of these conditions many new places have been built up, existing places have gained greatly in population, and in recent years West Virginia has witnessed a marked advance in the number of people found in cities and towns. Although the state has no great city like New York or Chicago, Wheeling being the only place with more than 25,000 persons, she has an increasing number of smaller towns which, like the flourishing town of Sistersville, show an astonishing growth. There are 139 incorporated places in the state, and within these

cities, towns, and villages are found more than 205,000 persons, or only a little less than one-fourth of all the people in West Virginia. (Fig. 49.) In the larger cities and towns, including places of about 2,000 inhabitants, are found

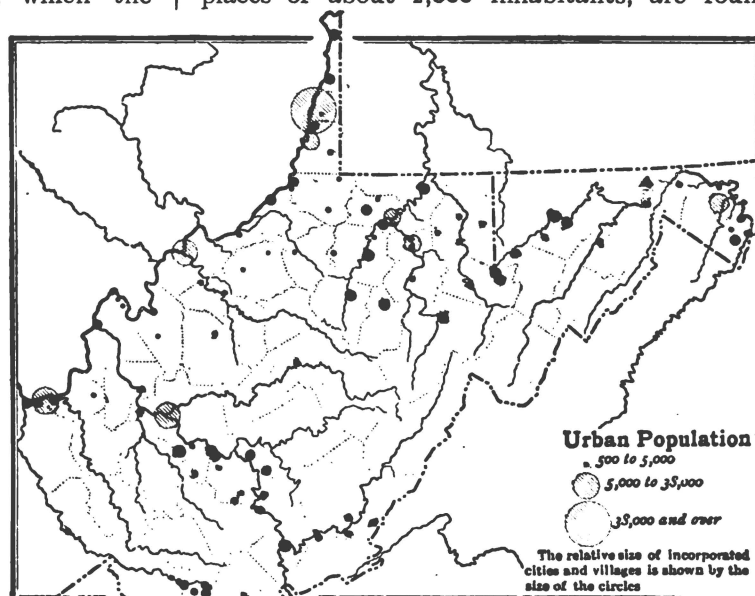


FIG. 49. *The distribution of urban population in West Virginia, census of 1900.*

nearly 150,000 people; ten years earlier these places held only about 100,000 persons.

**Wheeling**, the county seat of Ohio County, is the metropolis of the state, and its foremost commercial and manufacturing center. Lying in the northern panhandle, and on the Ohio where that river is joined by Wheeling Creek, the city has an excellent situation; its elevation above sea level is 640 feet, its site a narrow, alluvial plain gradually rising from the river to the precipitous hills overlooking the city. (Fig. 52.) Standing on the Ohio sixty-three miles southwest of Pittsburg, it is the most populous as well as the most important place on the river between that city and Cincinnati. Wheeling is an important railroad center, three roads either passing through or terminating here; it is likewise connected by electric lines with all the



FIG. 50. *Scene in the banking and dry goods district, Wheeling.*

principal towns within a radius of fifteen miles. A great railroad bridge spans the Ohio at this point, and likewise a suspension bridge. The last mentioned is more than 1,000 feet long and is a notable feat of engineering skill and an attractive feature of the city.

Manufacturing is the leading industry. Because of its superior shipping facilities by rail and river, and its abundance of cheap fuel, both coal and gas, it has been a favorite place for the establishment of manufacturing enterprises. The census returns of 1900 listed more than four hundred industrial establishments, the most important being the iron and steel mills (Fig. 37), glass works, cigar and tobacco factories, potteries, calico mills, tanneries, fruit-preserving works, fruit jar and can factories, machinery and tool works, piano factory, and a mattress and bed-supply factory.



FIG. 51. *The old Capitol at Wheeling, now the City Hall.*

Wheeling is a leading financial center, having a clearing house and fifteen banking institutions, with a combined capital exceeding two million dollars. (Fig. 50.) It is also the principal wholesaling and retailing center of the state.

The city has a number of splendid buildings, including the old capitol, now the city hall (Fig. 51), two public and several

private hospitals, many churches, good schools, and a public library of more than 21,000 volumes, which is maintained by the city Board of Education. Mt. de Chantal and Linsley Institute are educational institutions of note. Wheeling is the oldest city on the Ohio River, a settlement having been planted here by Colonel Ebenezer Zane in 1770. Laid out in 1793, the year 1806 saw the place incorporated as a town, and in 1836 it secured a city charter.



FIG. 52. *View of the city and Island of Wheeling. Here where the old National road crosses the Ohio a beautiful suspension bridge has been built connecting the city and the island.*



FIG. 53. *The Wood County Court House, Parkersburg.*

Wheeling has been twice the capital of the state, having occupied that position from 1863 to 1870 and again from 1875 to 1885. **Huntington**, the county seat of Cabell County, is the second city in size. It was named for its founder, Collis P. Huntington, the great railroad builder, and is the most flourishing place in the southwestern part of the state. It is situated on the Ohio River, fifty miles from Charleston, one hundred and sixty miles from Cincinnati, and two hundred and fifteen from Wheeling. It is the seat of various important manufactures, its industrial plants including extensive car and railroad shops, pottery plants, foundries, furniture and picture frame factories. The distributing center for the rich coal and lumber regions of the Guyandot and Big Sandy valleys, it controls a large and increasingly important trade. Huntington has wide, well-paved streets (Fig. 54), and is noted for the beauty of its site and the perfection of its city plan. Marshall College (Fig. 44), the parent State Normal School, located here, annually attracts several hundred students to the city. The West Virginia Asylum, with a fine group of buildings, occupies a commanding eminence in the eastern suburbs of the city.

The Norfolk & Western, the Chesapeake & Ohio, and the Baltimore & Ohio railroads and the Camden Interstate electric line afford excellent transportation facilities for trade and travel.

**Parkersburg**, the county seat of Wood County (Fig. 53), is the

third city in the state. The confluence of the Little Kanawha and the Ohio fixed, in early days, the site of an important port in the river trade, and later determined the point where the main line of the Baltimore & Ohio Railroad should cross the Ohio River. The early business of the port, based mainly on agriculture, was followed by the development of the coal and oil industries, and Parkersburg early became a thriving industrial town and flourishing trading point. To-day

three railroads center in the city, regular steamboat lines connect it with leading river ports, and it is one of the most important distributing centers of the state, with an extensive trade in petroleum. Wholesale merchandising, oil refining and shipping, and the manufacturing of steel, lumber, and furniture are its principal industrial interests. Parkersburg has an excellent situation. It extends for some distance along the banks of the Ohio and Kanawha rivers, the ground upon which the city is built rising gradually from the river banks to the hills beyond. At this point both streams are spanned by great railroad bridges. Parkersburg is connected with the historic town of Marietta, Ohio, by an electric road that is twelve miles in length



FIG. 55. *On Blennerhassett Island. The stones seen here represent all that is left of the island's once famous mansion.*

three railroads center in the city, regular steamboat lines connect it with leading river ports, and it is one of the most important distributing centers of the state, with an extensive trade in petroleum. Wholesale merchandising, oil refining and shipping, and the manufacturing of steel, lumber, and furniture are its principal industrial interests. Parkersburg has an excellent situation. It extends for some distance



FIG. 54. *A street scene in Huntington. The growth of this city, the second in the state, has been phenomenal.*

along the banks of the Ohio and Kanawha rivers, the ground upon which the city is built rising gradually from the river banks to the hills beyond. At this point both streams are spanned by great railroad bridges. Parkersburg is connected with the historic town of Marietta, Ohio, by an electric road that is twelve miles in length

Among attractive features of the city are included a beautiful public park, an excellent library, the Federal building, and the City Hall.

Within sight of the city is the beautiful island of Blennerhassett, its history and its magnificent trees making it an attractive point for pleasure seekers. (Fig. 55.)

**Charleston**, the capital of the state, is favorably situated at the junction of the Elk and Kanawha rivers, in the center of a section rich in timber, oil, gas, and coal. Two rivers and three trunk line railroads furnish abundant means for transportation in all directions, and the city has a large trade in coal, timber, and salt. Charleston enjoys a large wholesale mercantile business and is the banking center for the Kanawha valley. Its manufacturing business is on the increase. Among its industrial plants are flouring and lumber mills, furniture factories, foundries, and a marine boiler works, besides a tool factory and a large brick plant. Here is located an axe factory that is the



FIG. 56. *At Capon Springs. A famous health and pleasure resort in a picturesque mountain glen in the beautiful Shenandoah valley.*

largest establishment of its kind in the world. It turns out a thousand dozen axes per day, besides a considerable quantity of scythes of various kinds. The Davis Child's Shelter, a charitable home for dependent orphans, is located at Charleston. Among the more prominent buildings of the city stand the capitol (Figs. 41 and 42) and the Custom house. Charles-

ton was settled about 1786, and by legislative enactment became a town in 1794, and a city in 1870. It is the county seat of Kanawha County, and with the exception of the period between 1875-85 has been the seat of government since 1870. (Fig. 57.)

**Martinsburg**, the county seat of Berkeley County, is the foremost city of the eastern section of the state. Its various business enterprises include large woolen and cassimere mills, knitting mills, a pants factory, a wagon works, a distillery, bridge and frog works, and a canning factory. Extensive quarries of limestone are



FIG. 57. *A view of the water front at Charleston. Many of the handsome public and private buildings that adorn the city are situated on or near the river bank.*



operated near the city, and lime is manufactured in increasing quantities. The federal court and executive building is one of the largest in the town.

**Fairmont**, at the head of the Monongahela River, is the trade center of the Fairmont coal field, a rich and populous industrial region which transacts an immense volume of mining and general business each year. The town is greatly benefited also by the oil and gas business in the adjacent territory north and west. It is in the center of one of the great coke-producing districts and its trade includes extensive shipments of coke. (Fig. 58.) An added advantage lies in the rich agricultural section by which the town is surrounded. The Fairmont Normal School, which is located here, is one of the leading educational institutions of the state.

**Grafton**, the county seat of Taylor County, is on the Tygarts River, at the junction of the Wheeling, Parkersburg & Belington divisions of the Baltimore & Ohio Railroad. It is a busy railroad center and an important shipping point. Besides its railroad business, it has a number of mills and factories, among which are included railroad machine shops, and flour and planing mills. The Reform School for Boys at Pruntytown, four miles from Grafton, transacts its business through this town. Of historic interest is the National cemetery here, where are buried more than 1,200 soldiers of the Civil war.

**Moundsville** is named from the notable relic of the mound-builders within its limits; the immense cone-shaped mound found here is



FIG. 58. A coke crusher at work near Fairmont.

two hundred and forty-five feet in diameter and seventy-five feet high. (Fig. 59.) This prosperous town is on the Ohio River, twelve miles below Wheeling. Manufacturing industries lead in importance. Glass works, granite ware works, and cigar factories each employ a large number of men, and several smaller plants do a thriving business. Coal is mined near by, and the town has the additional advantage of being surrounded by excellent farming lands.

The Chautauqua held annually on the camp grounds of the city has been an attractive feature of its life for several years. The State Penitentiary is located at Moundsville.

**Bluefield**, the largest town on the Norfolk & Western Railroad, is the chief trade center for the widely known Pocahontas coal region, and has shared in the phenomenal development of that section of the state. More coal is shipped from Bluefield than from any other point in the state. In addition to the shipping and mercantile business it is the seat of various industrial enterprises, such as railroad repair shops, iron works, a brewery, a pants factory, lumber mills, and a flouring mill.

The state maintains here the Bluefield Colored Institute for advanced instruction of colored students. The Federal Government has erected at Bluefield a splendid Court and Customs building.

**Benwood** is a growing railroad and industrial center on the Ohio River, between Wheeling and Moundsville. It is the seat of flourishing iron and steel mills and other



FIG. 59. View of the great Indian mound at Moundsville to which the city owes its name.



FIG. 60. *New Richmond Falls near Hinton. Here the New River makes a sudden plunge over steep sandstone cliffs.*

manufactories, and its industries are increasing continually in number and importance. (Fig. 34.)

**Clarksburg**, the county seat of Harrison County, is one of several rapidly developing smaller cities of the north central section of the state. It is in the midst of a fine agricultural section and is surrounded by extensive regions rich in coal, oil, gas, and timber. As a result it has large manufactories for glass, pottery, tin plate, and lumber, as well as a considerable wholesale merchandising trade. Clarksburg is the birth-place of General "Stonewall" Jackson.

**Hinton**, the county seat of Summers County, is on the New River and on the main line of the Chesapeake & Ohio Railroad, one hundred miles southeast of Charleston. It has an extensive lumber business and is a growing distributing center. Not far from Hinton, at the little village of New Richmond where the river makes a sharp descent, are the Falls of New Richmond. (Fig. 60.)

**Sistersville**, on the Ohio River, is the largest town of Tyler County. In a rich oil and gas territory it has profited greatly by these sources of wealth. (Fig. 61.) Owing to these advantages the growth of the town has been phenomenal, its population increasing in a few years from less than 500 to nearly 3,000. A glass factory has recently been located at this place.

**Wellsburg**, one of the prosperous towns of the northern panhandle, has glass and terra cotta works, and a good trade with the farming section by which it is surrounded.

**Weston**, in Lewis County, is the seat of the State Hospital for the Insane. Oil and gas have been developed in the county in considerable quantities, and as a result Weston has grown rapidly in industrial importance and in population. Two glass plants and a lampblack factory are among the later plants established.

**Keyser**, an important town on the main line of the Baltimore & Ohio Railroad, has a good trade in lumber, coal, and agricultural products. Here is the Keyser Preparatory Branch of the West Virginia University. (Fig. 47.)

**Charles Town**, in a historic section of the Potomac valley, is one of the oldest towns in the state. It is surrounded by a rich and prosperous agricultural section.

**Davis**, in Tucker County, on the West Virginia Central & Pittsburg Railroad, is an important mining and lumbering point. It has grown rapidly with the development of the abundant natural resources of the surrounding region.

**Winona**, Fayette County, is a progressive town in the Kanawha valley forty miles south-



FIG. 61. *A view of Sistersville. The town owes its rapid growth to the development of vast stores of oil and gas found here. Notice the number of oil derricks rising above the houses.*

east of Charleston. It lies in the midst of a country rich in coal deposits and in valuable timber.

**New Cumberland** is a growing business center in a fine fruit and farming section of the northern panhandle. It manufactures fire brick, sewer pipe, and porcelain fixtures for electric lighting.

**Thomas**, a busy coal and lumber town of Tucker County, has grown rapidly in population.

**Piedmont**, a thriving business center on the Potomac, opposite Westernport, Maryland, has large paper and pulp mills. The town is making great strides in manufactures and trade.

lent facilities for trade, both rail and river, and a steel mill are the leading industrial factors. A monument is to be erected at this place to commemorate the Indian battle fought here in 1774.

**Morgantown**, the seat of the State University, is a prosperous town on the Monongahela River, seventeen miles north of Fairmont. A large steel mill, glass factories, and the development of the extensive oil and coal deposits in adjacent territory are its chief business interests. The surrounding country is a rich farming section.

**Monongah**, Marion County, is a growing town



FIG. 62. *Scene on the Cheat River near Morgantown. Winding about among the rugged hills through which it has slowly carved its way, this stream abounds in scenery that is exceedingly picturesque and beautiful.*

**Elkins** occupies a beautiful site in a bend of the famous Tygarts River. It has become a railroad, industrial, and business center of importance. (Fig. 33.) Davis and Elkins College is located here, as is also the Davis Hospital.

**Winifrede**, Kanawha County, lies in the Kanawha valley fifteen miles south of Charleston. With rich deposits of natural gas and oil near by, it has become a thriving mining town and is making rapid advances in population and trade.

**Point Pleasant** is a historic town at the junction of the Ohio and Kanawha rivers. Excel-

four miles southwest of Fairmont. It lies in a region rich in coal, and coal mining is the principal occupation of its inhabitants.

**Mannington**, in Marion County, surrounded by a territory rich in oil and gas, largely owes its prosperity to trade in these commodities. It is also backed by a good agricultural section.

**Maybeury** is in McDowell County four miles from the Virginia line. Abundant supplies of coal and valuable hardwood forests near by have made it a thriving industrial town.

**Montgomery**, in Fayette County, is on the



FIG. 63. *Rock House on the Potomac River in Petersburg Gap, between Petersburg and Moorefield.*

southern bank of the New-Kanawha, twenty-six miles southeast of Charleston. The surrounding country has valuable deposits of coal, and coal mining is the chief industry of the town. A preparatory branch of the State University is located here. (Fig. 45.)

**Buckhannon**, the county seat of Upshur County, is an attractive residence and business town. A glass plant, lumber mills, and a tannery are among its industrial plants. Here is Wesleyan College, a leading denominational institution.

**McMechen**, Marshall County, is a busy railroad town on the Ohio River five miles below Wheeling. The development of this town has been unusually rapid; only fifteen years ago the site it now covers was farming land.

**Guyandot**, Cabell County, is an industrial town on the Ohio where that river is met by the Guyandot. It adjoins Huntington on the west and is the seat of saw, planing, and woolen mills.

**Ceredo**, Wayne County, on the Ohio River six miles below the city of Huntington, is the junction point of three railroads.

**McDowell**, in the county of the same name, is a flourishing mining town near the southern border of the state. Here are three collieries with large and annually increasing coal outputs.

**Eagle**, Fayette County, on the southern bank of the Kanawha, has excellent shipping facilities both by rail and river. It is the trade center for a region underlaid with extensive deposits of steam, gas, and splint coal. Its coal output is large, and coke is manufactured extensively.

**Shepherdstown**, Jefferson County, the oldest town in West Virginia, is the seat of a State Normal School. It was the home of James Rumsey, whose invention of the steamboat preceded that of Fulton.

**Elkhorn**, McDowell County, five miles from the Virginia border in a region rich in coal, has large coal-mining and coke industries.

**Ansted**, Fayette County, fifty miles southeast of Charleston in the New River coal field, is the trade center for flourishing coal mines.

**New Martinsville**, the county seat of Wetzel County, is situated on the Ohio River forty miles below Wheeling. Lumber and glass factories are among the industries located here.

**Keystone**, McDowell County, is in one of the great coal fields of the state. Coal mining and the manufacture of coke are the chief industries.

**Ravenswood**, Jackson County, on the Ohio, is thirty-five miles below Parkersburg. It has a growing trade, and is an educational center.

**Williamson**, the county seat of Mingo County, is one of the leading towns on the Norfolk & Western Railroad. It is in a region of great natural wealth, and has varied business interests.

**Richwood**, in Nicholas County, the foremost lumber town in the state, in recent years has had a phenomenal growth. It has extensive sawmills, a pulp paper mill, tannery, clothespin factory, hub factory, and other flourishing wood-working establishments. (Figs. 36 and 64.)



FIG. 64. *Clothespin factory at Richwood. Magnificent forests, chiefly of fine poplar and hardwoods, cover the surrounding country and here large lumber and allied industries have sprung up.*

## III. STATISTICS AND AIDS TO TEACHERS.

Statistics of the State of West Virginia, by Counties, Census of 1900.

| COUNTY     | ORGANIZATION | AREA | POPULATION 1900 | POPULATION 1890 | FARM PROPERTY INCLUDING LIVE STOCK | FARM PRODUCTS | MANUFACTURES | COUNTY SEAT      | POPULATION 1900 |
|------------|--------------|------|-----------------|-----------------|------------------------------------|---------------|--------------|------------------|-----------------|
| Barbour    | 1843         | 393  | 14,108          | 12,702          | \$ 4,973,678                       | \$ 778,845    | \$ 247,373   | Philippi         | 665             |
| Berkeley   | 1772         | 257  | 19,469          | 18,702          | 4,838,325                          | 894,748       | 1,659,860    | Martinsburg      | 7,564           |
| Boone      | 1847         | 512  | 8,194           | 6,885           | 1,417,788                          | 306,303       | 43,483       | Madison          | 184             |
| Braxton    | 1836         | 541  | 18,904          | 13,928          | 3,779,381                          | 939,819       | 924,003      | Sutton           | 864             |
| Brooke     | 1796         | 97   | 7,219           | 6,660           | 2,629,122                          | 378,845       | 902,192      | Wellsburg        | 2,588           |
| Cabell     | 1809         | 261  | 29,252          | 23,595          | 2,275,050                          | 649,696       | 4,510,177    | Huntington       | 11,923          |
| Calhoun    | 1856         | 276  | 10,266          | 8,155           | 2,111,104                          | 552,512       | 60,264       | Grantsville      | 225             |
| Clay       | 1858         | 348  | 8,248           | 4,659           | 709,270                            | 220,552       | 326,006      | West Union       | 413             |
| Doddridge  | 1845         | 344  | 13,689          | 12,183          | 4,065,962                          | 600,444       | 273,141      | Payetteville     | 623             |
| Fayette    | 1831         | 775  | 31,987          | 29,542          | 2,037,686                          | 330,847       | 1,375,130    | Glenview         | 413             |
| Gilmer     | 1845         | 367  | 11,762          | 9,746           | 3,064,837                          | 626,984       | 248,266      | Petersburg       | 312             |
| Gilmer     | 1845         | 367  | 11,762          | 9,746           | 3,064,837                          | 626,984       | 248,266      | Petersburg       | 312             |
| Grant      | 1866         | 483  | 7,275           | 6,802           | 2,667,013                          | 502,438       | 879,944      | Lewisburg        | 872             |
| Greenbrier | 1777         | 1051 | 20,683          | 18,034          | 6,513,212                          | 1,034,307     | 415,416      | Romney           | 580             |
| Hampshire  | 1754         | 662  | 11,806          | 11,419          | 2,907,107                          | 752,225       | 492,494      | New Cumberland   | 2,108           |
| Hancock    | 1848         | 86   | 6,693           | 6,414           | 2,207,012                          | 327,350       | 659,133      | Moorefield       | 460             |
| Hardy      | 1785         | 594  | 8,449           | 7,567           | 2,414,530                          | 456,328       | 325,517      | Clarksburg       | 4,050           |
| Harrison   | 1784         | 431  | 27,090          | 21,919          | 11,440,898                         | 1,372,939     | 800,532      | Ripley           | 579             |
| Jackson    | 1831         | 455  | 22,987          | 19,021          | 5,229,620                          | 1,104,583     | 491,341      | Charles Town     | 2,392           |
| Jefferson  | 1801         | 213  | 15,935          | 15,553          | 5,496,891                          | 954,819       | 934,493      | Charleston       | 11,009          |
| Kanawha    | 1789         | 872  | 54,096          | 42,756          | 4,358,530                          | 978,879       | 4,153,593    | Weston           | 2,560           |
| Lewis      | 1816         | 414  | 10,980          | 15,895          | 7,035,687                          | 845,913       | 403,389      | Hamlin           | 380             |
| Lincoln    | 1867         | 441  | 15,434          | 11,240          | 1,696,388                          | 630,020       | 145,925      | Logan            | 444             |
| Logan      | 1824         | 494  | 6,955           | 11,101          | 1,071,600                          | 292,148       | 21,016       | Weich            | 444             |
| McDowell   | 1858         | 538  | 18,747          | 7,300           | 1,365,936                          | 158,928       | 1,443,393    | Fairmont         | 5,655           |
| Marion     | 1842         | 357  | 32,430          | 20,721          | 7,537,484                          | 909,133       | 1,787,401    | Moundsville      | 5,362           |
| Marshall   | 1835         | 311  | 26,444          | 20,735          | 7,579,322                          | 1,103,999     | 12,054,865   | Point Pleasant   | 1,934           |
| Mason      | 1804         | 457  | 24,142          | 22,863          | 5,049,341                          | 1,085,717     | 497,367      | Princeton        | 523             |
| Mercer     | 1837         | 437  | 23,023          | 16,002          | 2,966,188                          | 583,004       | 1,144,858    | Keyser           | 2,536           |
| Mineral    | 1866         | 332  | 12,883          | 12,085          | 2,345,467                          | 383,750       | 1,296,949    | Williamson       | 710             |
| Mingo      | 1895         | 424  | 11,359          | .....           | 1,099,510                          | 238,598       | 278,579      | Morgantown       | 1,895           |
| Monongalia | 1776         | 368  | 19,049          | 15,705          | 10,325,816                         | 844,159       | 644,737      | Union            | 256             |
| Monroe     | 1799         | 404  | 13,130          | 12,429          | 4,660,386                          | 845,376       | 273,724      | Berkeley Springs | 781             |
| Morgan     | 1820         | 235  | 7,294           | 6,744           | 1,068,238                          | 334,788       | 950,490      | Summersville     | 223             |
| Nicholas   | 1818         | 691  | 11,403          | 9,309           | 2,840,316                          | 488,174       | 144,057      | Wheeling         | 38,878          |
| Ohio       | 1776         | 111  | 48,024          | 41,557          | 4,425,804                          | 779,847       | 18,168,851   | Franklin         | 205             |
| Pendleton  | 1787         | 707  | 9,167           | 8,711           | 3,632,301                          | 566,202       | 161,246      | St. Marys        | 825             |
| Pleasants  | 1851         | 142  | 9,345           | 7,539           | 1,923,588                          | 383,701       | 171,567      | Marlinton        | 171             |
| Pocahontas | 1821         | 858  | 8,572           | 6,814           | 3,355,012                          | 528,344       | 146,750      | Kingwood         | 700             |
| Preston    | 1818         | 671  | 22,727          | 20,355          | 5,982,114                          | 1,251,706     | 811,735      | Beckley          | 342             |
| Putnam     | 1848         | 353  | 17,330          | 14,342          | 2,995,248                          | 838,567       | 313,499      | Elkins           | 2,016           |
| Raleigh    | 1850         | 560  | 12,436          | 9,597           | 2,477,995                          | 521,345       | 148,517      | Harrisville      | 472             |
| Randolph   | 1786         | 1086 | 17,070          | 11,633          | 5,122,175                          | 739,134       | 1,396,255    | Spencer          | 737             |
| Fitchie    | 1844         | 457  | 18,901          | 16,621          | 5,011,804                          | 844,065       | 377,082      | Hinton           | 3,763           |
| Roane      | 1856         | 547  | 19,852          | 15,303          | 4,366,307                          | 987,109       | 343,771      | Parsons          | 618             |
| Summers    | 1871         | 368  | 16,265          | 13,117          | 2,330,288                          | 493,062       | 473,266      | Middlebourne     | 403             |
| Taylor     | 1844         | 132  | 14,978          | 12,147          | 2,903,913                          | 412,513       | 686,652      | Buckhannon       | 1,589           |
| Tucker     | 1856         | 440  | 13,433          | 6,459           | 1,124,730                          | 251,505       | 2,376,645    | Wayne            | 407             |
| Tyler      | 1814         | 269  | 18,252          | 11,962          | 3,711,832                          | 655,386       | 869,735      | Webster Springs  | 297             |
| Upshur     | 1851         | 326  | 14,696          | 12,714          | 3,954,443                          | 721,258       | 316,994      | New Martinsville | 1,089           |
| Wayne      | 1841         | 545  | 21,619          | 18,652          | 2,820,958                          | 902,687       | 616,462      | Elizabeth        | 657             |
| Webster    | 1860         | 590  | 8,362           | 4,783           | 1,108,051                          | 310,641       | 603,331      | Parkersburg      | 11,703          |
| Wetzel     | 1846         | 305  | 22,880          | 16,841          | 5,401,404                          | 880,978       | 182,224      | Oceana           | 187             |
| Wirt       | 1848         | 254  | 10,284          | 9,411           | 2,091,467                          | 489,809       | 159,710      |                  |                 |
| Wood       | 1793         | 357  | 34,452          | 28,612          | 6,289,103                          | 1,045,415     | 4,210,292    |                  |                 |
| Wyoming    | 1850         | 526  | 8,380           | 6,247           | 1,393,775                          | 257,375       |              |                  |                 |

Population of West Virginia at Each Federal Census.\*

| RELATIVE RANK | PERCENTAGE OF INCREASE | INCREASE IN TEN YEARS | TOTAL POPULATION | DENSITY PER SQ. MILE |
|---------------|------------------------|-----------------------|------------------|----------------------|
| 1790.....     | 17                     | .....                 | 55,873           | 2.3                  |
| 1800.....     | 16                     | 40.6                  | 78,592           | 3.2                  |
| 1810.....     | 17                     | 30.7                  | 107,469          | 4.3                  |
| 1820.....     | 19                     | 27.2                  | 136,768          | 5.5                  |
| 1830.....     | 20                     | 29.4                  | 176,924          | 7.2                  |
| 1840.....     | 23                     | 26.7                  | 224,257          | 9.1                  |
| 1850.....     | 25                     | 19.8                  | 268,665          | 10.9                 |
| 1860.....     | 27                     | 40.2                  | 376,688          | 15.3                 |
| 1870.....     | 27                     | 17.3                  | 442,014          | 17.9                 |
| 1880.....     | 29                     | 30.9                  | 618,457          | 25.1                 |
| 1890.....     | 28                     | 23.3                  | 762,794          | 31.0                 |
| 1900.....     | 28                     | 25.7                  | 1,066,006        | 38.9                 |

\*The statistics for 1790-1860 refer to that part of Virginia which in 1863 became the present state of West Virginia.

State or Country of Birth of the Population of West Virginia.

| STATE                    | NUMBER | COUNTRY              | NUMBER |
|--------------------------|--------|----------------------|--------|
| Virginia.....            | 61,508 | Germany.....         | 6,537  |
| Ohio.....                | 40,301 | Ireland.....         | 3,342  |
| Pennsylvania.....        | 28,027 | Italy.....           | 2,921  |
| Kentucky.....            | 10,867 | England.....         | 2,622  |
| Maryland.....            | 9,608  | Austria.....         | 1,025  |
| North Carolina.....      | 3,064  | Scotland.....        | 855    |
| New York.....            | 2,945  | Hungary.....         | 810    |
| Indiana.....             | 1,326  | Russia.....          | 721    |
| Illinois.....            | 1,021  | Canada.....          | 711    |
| Tennessee.....           | 980    | Switzerland.....     | 666    |
| Missouri.....            | 964    | Wales.....           | 482    |
| District of Columbia.... | 446    | Russian Poland.....  | 317    |
| Georgia.....             | 258    | France.....          | 298    |
| South Carolina.....      | 249    | German Poland.....   | 133    |
| Other states.....        | 4,738  | Other countries..... | 981    |



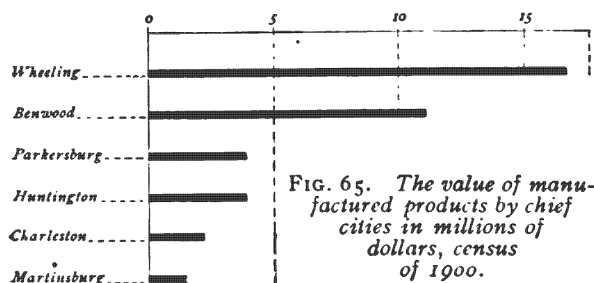


FIG. 65. The value of manufactured products by chief cities in millions of dollars, census of 1900.

### Population of the Leading Cities and Towns of West Virginia at Each Federal Census from 1850 to 1900.

| CITIES AND TOWNS | 1900   | 1890   | 1880   | 1870   | 1860   | 1850   |
|------------------|--------|--------|--------|--------|--------|--------|
| Wheeling         | 38,878 | 34,522 | 30,737 | 19,280 | 14,083 | 11,435 |
| Huntington       | 11,023 | 10,108 | 3,174  |        |        |        |
| Parkersburg      | 11,703 | 8,408  | 6,582  | 5,540  | 2,493  | 1,218  |
| Charleston       | 11,090 | 6,742  | 4,102  | 3,102  | 1,520  | 1,050  |
| Martinsburg      | 7,504  | 7,220  | 6,315  | 4,863  | 3,304  | 2,100  |
| Fairmont         | 5,655  | 1,023  | 900    | 621    | 704    | 683    |
| Grafton          | 5,650  | 3,150  | 3,040  | 1,087  | 801    |        |
| Moundsville      | 5,362  | 2,688  | 1,774  | 1,500  | 515    | 445    |
| Bluefield        | 4,644  | 1,775  |        |        |        |        |
| Benwood          | 4,511  | 2,034  |        |        |        |        |
| Clarksburg       | 4,050  | 3,008  | 2,307  |        | 895    |        |
| Hinton           | 3,763  | 2,570  | 879    |        |        |        |
| Sistersville     | 2,979  | 400    | 386    | 364    | 351    |        |
| Wellsburg        | 2,588  | 2,235  | 1,815  | 1,360  |        |        |
| Weston           | 2,500  | 2,143  | 1,516  | 1,111  | 820    |        |
| Keyser           | 2,530  | 2,165  | 1,001  |        |        |        |
| Charles Town     | 2,392  | 2,287  | 2,010  | 1,593  | 1,370  | 1,507  |
| Davis            | 2,391  | 918    |        |        |        |        |
| Winona           | 2,340  |        |        |        |        |        |
| New Cumberland   | 2,108  | 2,305  | 1,218  |        |        |        |
| Thomas           | 2,120  | 200    |        |        |        |        |
| Piedmont         | 2,115  |        | 1,853  | 1,360  |        |        |
| Elkins           | 2,016  |        |        |        |        |        |
| Winifrede        | 2,000  | 737    |        |        |        |        |
| Point Pleasant   | 1,914  | 1,853  | 1,030  | 773    | 510    |        |
| Morgantown       | 1,805  | 1,011  | 745    | 797    | 741    |        |
| Monongah         | 1,786  |        |        |        |        |        |
| Mannington       | 1,681  | 908    |        | 411    | 241    |        |
| Maybeury         | 1,679  |        |        |        |        |        |
| Montgomery       | 1,504  |        |        |        |        |        |
| Buckhannon       | 1,580  | 1,403  | 761    | 475    | 427    |        |
| McMechen         | 1,405  | 427    |        |        |        |        |
| Guyandot         | 1,450  | 1,502  | 810    | 427    | 538    |        |
| Ceredo           | 1,279  | 923    | 462    |        |        |        |
| McDowell         | 1,241  |        |        |        |        |        |
| Eagle            | 1,200  |        |        |        |        |        |
| Shepherdstown    | 1,184  | 1,515  | 1,533  | 1,389  | 1,219  | 1,501  |
| Elkhorn          | 1,123  |        |        |        |        |        |
| Ansted           | 1,000  |        |        |        |        |        |
| New Martinsville | 1,080  | 692    | 778    | 260    |        | 228    |
| Keystone         | 1,088  |        |        |        |        |        |
| Ravenswood       | 1,074  | 817    | 681    | 362    |        |        |
| Eckman           | 966    |        |        |        |        |        |
| Ronceverte       | 968    | 481    | 305    |        |        |        |
| Cameron          | 904    |        | 408    |        |        |        |
| Mason            | 904    | 1,020  | 1,186  | 1,182  | 1,016  |        |
| Harpers Ferry    | 896    | 958    | 764    |        | 1,339  | 1,747  |
| Macdonald        | 890    |        |        |        |        |        |
| Lewisburg        | 872    | 1,016  | 985    | 875    | 960    |        |
| Sutton           | 864    | 276    |        |        |        |        |
| Kenova           | 861    |        |        |        |        |        |
| Bramwell         | 825    | 400    |        |        |        |        |
| St. Marys        | 825    | 520    | 350    |        |        |        |
| Freeman          | 818    |        |        |        |        |        |
| St. Albans       | 816    |        | 482    |        |        |        |
| Fetterman        | 766    | 557    | 358    |        |        |        |
| Berkeley Springs | 781    |        | 534    |        |        |        |
| Bolivar          | 781    | 804    | 822    |        | 1,130  | 1,054  |
| Acme             | 770    |        |        |        |        |        |
| Elm Grove        | 768    | 504    |        |        |        |        |
| Newburg          | 751    | 778    | 802    |        |        |        |
| Salem            | 740    | 310    |        |        |        |        |
| Pennsboro        | 738    | 570    | 310    |        |        |        |
| Spencer          | 747    | 431    | 226    | 143    | 196    |        |
| Seneca           | 723    |        |        |        |        |        |
| Williamson       | 710    |        |        |        |        |        |
| Kingwood         | 700    |        | 365    |        |        |        |
| Paw Paw          | 603    | 772    |        |        |        |        |
| Raymond City     | 600    |        | 600    |        |        |        |
| Philippi         | 605    | 378    |        |        |        |        |

### Population of Leading Cities and Towns—Continued.

| CITIES AND TOWNS      | 1900 | 1890 | 1880 | 1870 | 1860 | 1850 |
|-----------------------|------|------|------|------|------|------|
| Elizabeth             | 657  | 710  | 395  |      |      |      |
| Cairo                 | 653  |      | 75   |      |      |      |
| Rowlesburg            | 652  | 560  | 402  |      |      |      |
| Brooklyn Junction     | 632  | 285  |      |      |      |      |
| West Union            | 623  | 312  | 356  |      |      |      |
| Vivian                | 619  |      |      |      |      |      |
| Parsons               | 618  |      |      |      |      |      |
| Quinnimont            | 618  |      | 551  |      |      |      |
| Terra Alta            | 616  | 443  |      |      |      |      |
| Smithfield            | 600  |      |      | 361  |      | 444  |
| Claremont             | 593  |      |      |      |      |      |
| Milton                | 582  | 548  | 377  |      |      |      |
| Elk Garden            | 581  | 723  |      |      |      |      |
| New Haven             | 580  |      | 538  | 489  |      |      |
| Romney                | 580  | 451  | 371  | 482  | 569  |      |
| Ripley                | 579  | 417  | 425  | 226  |      |      |
| Burning Springs       | 542  |      | 434  |      |      |      |
| Bayard                | 540  |      |      |      |      |      |
| Shinnston             | 535  | 403  | 280  |      |      |      |
| Princeton             | 523  |      |      |      |      |      |
| Coalburg              | 519  |      |      |      |      |      |
| Alderson              | 518  | 663  | 478  |      |      |      |
| White Sulphur Springs | 518  |      |      |      |      |      |
| Hartford              | 515  | 446  | 567  | 918  | 915  |      |
| Amos                  | 513  |      |      |      |      |      |
| Littleton             | 509  |      | 166  |      |      |      |
| Powellton             | 501  | 491  |      |      |      |      |
| Glen Jean             | 500  |      |      |      |      |      |

### The Manufacturing Cities of West Virginia, and Facts about their Industrial Plants, Census of 1900.

| CITIES      | NUMBER OF ESTABLISHMENTS | NUMBER OF WAGE EARNERS | AMOUNT OF WAGES PAID | VALUE OF PRODUCTS |
|-------------|--------------------------|------------------------|----------------------|-------------------|
| Wheeling    | 406                      | 7,219                  | \$3,096,730          | \$16,747,544      |
| Benwood     | 16                       | 2,095                  | 1,388,601            | 11,142,268        |
| Huntington  | 89                       | 1,861                  | 871,708              | 3,873,432         |
| Parkersburg | 181                      | 1,683                  | 677,500              | 3,026,751         |
| Charleston  | 119                      | 1,176                  | 454,578              | 2,052,762         |
| Martinsburg | 101                      | 1,105                  | 282,021              | 1,410,514         |

### The Leading Manufactures of West Virginia and Some Facts Concerning the Industries.

| INDUSTRIES                                                 | RANK OF STATE | NUMBER OF PLANTS | NUMBER OF WAGE EARNERS | AMOUNT OF WAGES PAID | VALUE OF PRODUCTS |
|------------------------------------------------------------|---------------|------------------|------------------------|----------------------|-------------------|
| Iron and steel                                             | 6             | 11               | 4,407                  | \$2,293,524          | \$16,514,212      |
| Lumber and timber products                                 | 23            | 950              | 5,327                  | 1,828,558            | 10,612,837        |
| Flouring and grist mill products                           | 25            | 737              | 314                    | 154,623              | 5,541,353         |
| Coke                                                       | 3             | 77               | 3,131                  | 890,024              | 3,529,241         |
| Leather (tanned, curried, and finished)                    | 13            | 46               | 664                    | 224,444              | 3,210,753         |
| Cars and general shop construction (steam R. R. companies) | 23            | 23               | 2,605                  | 1,256,640            | 2,043,557         |
| Tobacco products                                           | 76            | 76               | 710                    | 316,610              | 2,423,104         |
| Glass                                                      | 7             | 16               | 1,040                  | 780,422              | 1,871,705         |
| Planing-mill products                                      | 23            | 81               | 555                    | 238,505              | 1,820,403         |
| Clay products                                              | 13            | 56               | 1,819                  | 684,820              | 1,541,239         |
| Foundry and machine shop products                          | 31            | 62               | 591                    | 317,293              | 1,401,852         |
| Slaughtering and meat packing (wholesale)                  | 3             | 3                | 76                     | 40,642               | 1,337,578         |

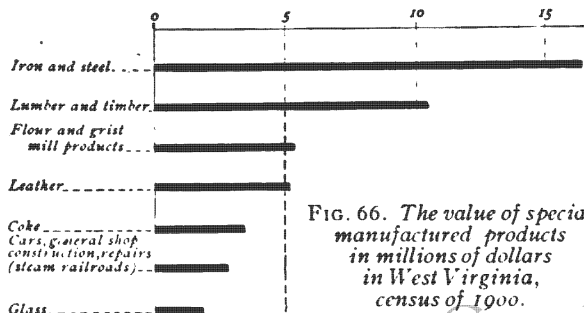


FIG. 66. The value of special manufactured products in millions of dollars in West Virginia, census of 1900.







